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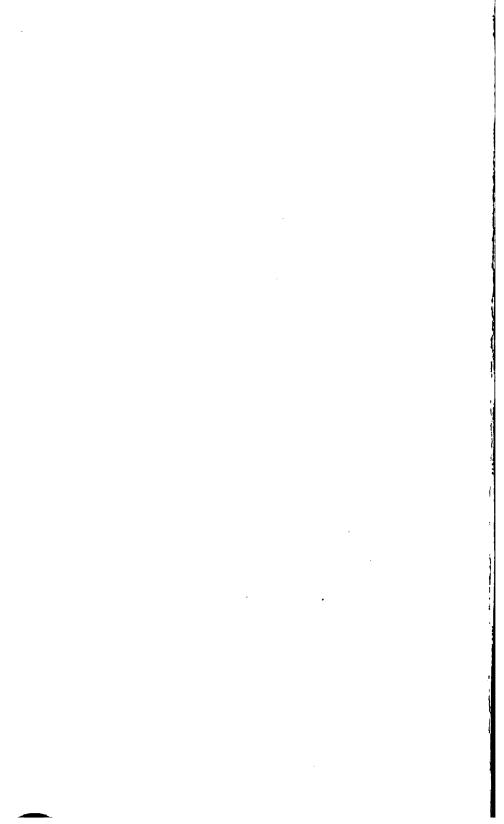
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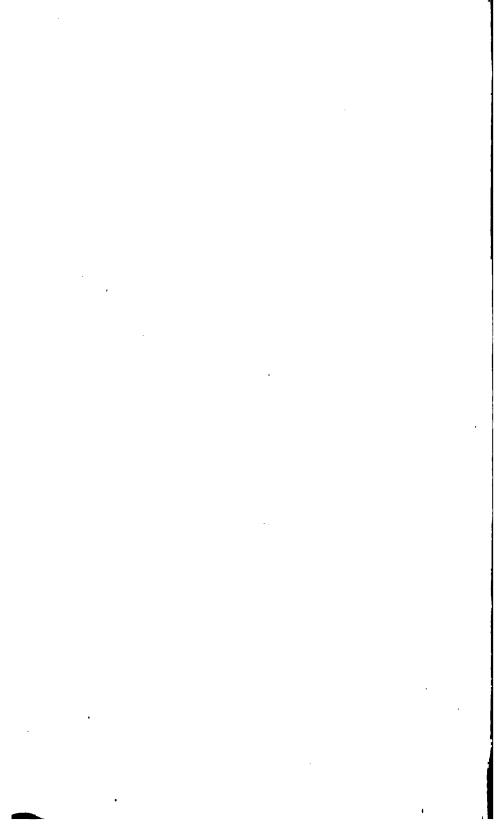
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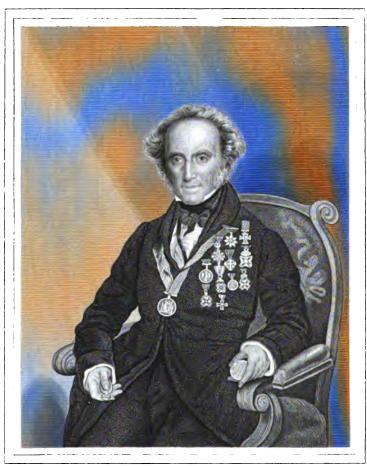


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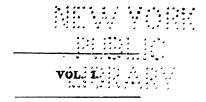
C.Freeman Sc.

Sir Ulward Themason, Knight.

# SIR EDWARD THOMASON'S

## **MEMOIRS**

### DURING HALF A CENTURY.



ENTERED AT STATIONERS' HALL.

LONDON:

LONGMAN, BROWN, GREEN, AND LONGMANS

M.DCCC.XLV

H. B. CABRUNGTON, PRINTER, BATH.

#### PREFACE.

A book without a preface is an anomaly. Custom demands a preface, even though it be as brief as the motto of the Author's crest, "Deo non fortuna;" and every writer finds, at least when his book is finished, if not before, the benefit and expediency in the paying the tax, and of availing himself of the opportunity thereby afforded to apologize for the omission and commission, inasmuch as he may have erred, and to gonciliate, as far as possible, by a statement of what he intended should ensue, the favourable judgment of his fellow townsmen upon what he has actually accomplished!

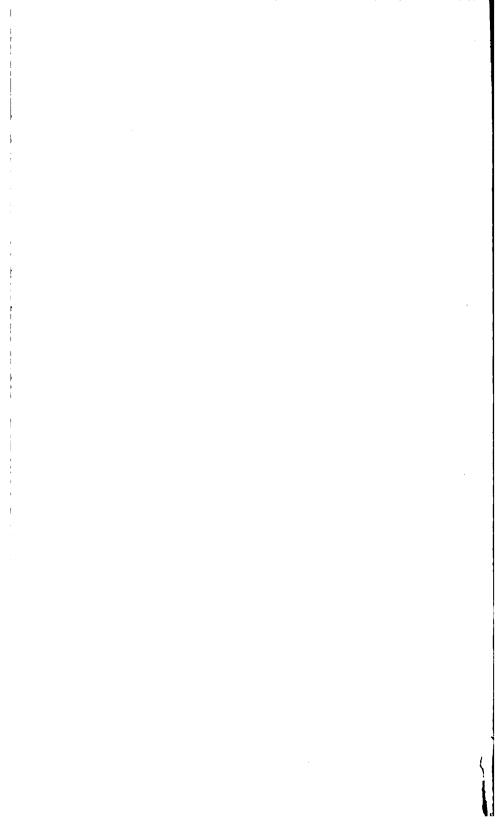
If the Author has at all succeeded in the object at which he aims, he flatters himself that the Work may be found (with deference be it, however, spoken) instructive and useful to the young and rising manufacturers of the great commercial town of Birmingham, comprising those whose ambition and taste lead them to improve their works and resources by inventions protected by patent right; and the ambition of others, who seek for honours to be conferred by their Sovereign for improvements which application and study may have developed in the production of inventions novel and useful in science and the arts!

In the line of manufactures in which the Author was engaged for upwards of forty years, and which was confined to the highest class of the metallic arts, he is animated with the hope that he has succeeded in many inventions calculated to reflect some credit on the inventor, and in which opinion he conceives himself borne out by his having been honoured with the Order of Knighthood from his own Sovereign, as well as having been honoured with more than thirty distinguished tokens of approbation from Foreign Potentates, of decorative orders of knighthood, gold medals of merit, diamond rings, diamond snuff-boxes, and other foreign specimens of art, for which gratifying compliments he begs to avail himself of a line here to express his everlasting gratitude.

The Author filled, for a period of twenty years, for eight Foreign Governments, the honourable appointment of Vice-Consul for the town of Birmingham, which regularly introduced him to foreigners of the highest distinction—to princes, nobles, ambassadors, professors, &c.; thereby laying a foundation for a correspondence somewhat unique, and which may be found useful and instructive to the rising manufacturers of his native town.

The Author avails himself of these documents to enable him to arrange a series of events during so long a period, and to form therefrom a publication calculated, it will be said, to gratify the ambition of the Author; but he humbly hopes it may be held amusing and instructive to those into whose hands it may chance to fall, as it will be exemplified that, in the year 1830, the Author completed the laborious work of sixty large medals on the Bible, and that the Author has assumed the liberty of filling up the Sacred History from one medal to another to the best of his ability, which will present to the mind of the young reader an opportunity to inform himself, by the most concise and easy way, of "the beauty of holiness," and of the most important and sacred historical events, which will mend and improve the heart, and induce him, for his comfort, consolation, and salvation, to

"STUDY THE HOLY SCRIPTURES."



## MEMOIRS.

I was put a pupil—or, what is the fact in another 1795. way of expressing it, I was, at the age of sixteen, articled to Messrs. Boulton and Co., of Soho, to learn their trades, until I attained the age of twenty-one years. The extent of the manufactory, and the variety of machinery used for the furtherance of the manufacturing of the numerous articles made there, as buttons, bronzes, steel toys, silver and plated wares, and steam-engines, excelled all others of the like description in Europe. tiated in this scientific school of Soho, which induced in me a versatility of taste for mechanism, and to cultivate the arts and sciences. It, nevertheless, gave me an ambitious feeling far beyond the means I possessed, on coming of age, to indulge in.

My father was in business, as a buckle-manufacturer, above forty years, during which period buckles were worn by all classes, from the monarch to the peasant; and it is supposed nearly six thousand persons, including men, women, and children, were employed in the town of Birmingham in making them. My father erected his dwelling-house, in early life, in St. Philip's Square, on that side called Colmore Row; and the houses from his own residence to the corner, and down part of Church Street, were his property, behind which were his warehouses and manufactory which he occupied during the time he was in business. He was extremely industrious

1795. in his habits, truly honourable in all the transactions of life, and quite a domesticated character. He was what was termed, in his days, a truly loyal Church and King He had used to say that all nations ought to envy our glorious constitution, for the legislature (or people) check the lords, the lords check the legislature, the sovereign checks them both; and which, he said, constitutes the true line of liberty and happiness of the My father was what, in those days, was called a pillar of the Church. In health, he never omitted going twice, but upon no account would he be induced to go thrice in one Sunday. He was the best of husbands and fathers, blest with a most amiable wife, and, with their family, they lived in the utmost harmony and affection; and he was so generally respected, that his townsmen elected him to the honourable appointment of High Bailiff of Birmingham.

I have heard my father say that his manufactory completed one thousand pairs of buckles per diem, or six thousand pairs per week, when in full work. In those days, buckles were worn by both sexes, and also by children, and were principally made of white metal, which looked like silver; some few were plated with silver. I heard my father say that he invented one pattern, which he called the "silver penny," by which pattern he cleared above £1000 sterling. He obtained an independence, and retired from business about the age of sixty-two; he, however, kept the buildings of warehouses and workshops unoccupied, ready for me on my leaving Soho.

I began my manufactories in the year 1793, first establishing the trade of gilt and plated buttons, of the finest class; I then annexed the trade of gilt and gold

jewellery; to this I added a department for the making 1796. of medals, tokens, and coins, of gold, silver, bronzed, &c.; to which I added works in bronze, including fine cut glass; and, lastly, I subjoined a manufactory for silver and gold plate, and silver-mounted plated wares of the highest class of workmanship in modelling, embossing, sculptuary, and chasing, all of which trades occupied, including about twelve showrooms, to the number of sixty to seventy rooms.

Having been accustomed, during the last five years at Soho, to witness continual new inventions in mechanism and metallurgy, the mind became restless to produce some novelty or invention worthy of being patented, thereby handing my name a little to notice.

The war with France had commenced, and been already carried on since 1793. Every effort was made to deprive the French of their naval power. The French Government, however, kept their fleets in the inner harbours of Brest, Dunkirk, and other harbours on the French coasts; and as it was the law of all maritime nations, that all persons taken in a fire-ship, with intent to set fire to a fleet in harbour, should suffer death, it was stated to be little less than the commission of murder to permit any of our gallant sailors to attempt so hazardous an enterprise

It appeared to me practicable to arrange machinery, worked by a small steam engine, and all fixed in a fire-ship, to steer herself into the enemy's harbours, particularly as the French Government at that period made a show of their vessels daily in the cuter harbour; and General Bentinck remarked to me, that Government were in possession of a chemical combustion that would set fire to the enemy's fleet, provided means

1796. could be invented by machinery to force on the fire-ship, and to turn the rudder at a few given points, and on coming in contact with the fleet in the harbours would release an arrangement by spring triggers, and set fire to the combustibles. I turned my thoughts to such an invention, and in August, 1796, having made a handworking model, with paddle wheels, and a small steam engine to propel the same, as occasion required, moving a train of wheels for the direction of the rudder at given times, I communicated my invention to the Earl of Aylesford, of Packington Hall, Warwickshire, to solicit him to inspect the same, and afterwards to obtain for me an interview with the first Lord of the Admiralty, then Earl Spencer and the following letter I received from his lordship, in reply:—

Packington Hall, September 28th, 1796.

point a time with Mr. Thomason for seeing the very curious model he mentions of a fire-ship in his letter. As he refers him to the Rev. Mr. Jacques, he will have an opportunity of seeing him to-morrow, which he should wish to do before he can with propriety write to Lord Spencer. He should have been very glad to have seen the model, but he goes early in the next week to town, and his engagements make it impossible to fix a time; but he begs to acquaint Mr. Thomason that he will be but an imperfect judge, having very little acquaintance with the mathematics.

Soon after Lord Aylesford reached town, he sent me the following communication:—

1796.

"Sir.

"I had fortunately an opportunity of speaking to Lord Spencer yesterday, a few hours after I came to town, when I did not neglect to mention to him the subject of your letter, and his Lordship authorized me to say that he shall be glad to see your model whenever it is convenient to you to bring it to London.

"I should recommend to you to call at the Admiralty, and send in a card to Lord Spencer, requesting him to appoint the time when you may wait on him with the model.

"I am, Sir,

"Your very humble servant,

Aylesford.

I took the model up to town, and called at the Admiralty. Lord Spencer being out, I left my card, and a note to his Lordship. The next morning I received the following letter:—

"Admiralty, 11th October, Tuesday, 1796.

"Sir,

"Lord Spencer, in answer to the note he has received from you to-day, has directed me to say that he will be glad to see you, and your model, here on Thursday next, at twelve o'clock.

"I am, Sir,

"Your obedient, humble servant,

John Harrison

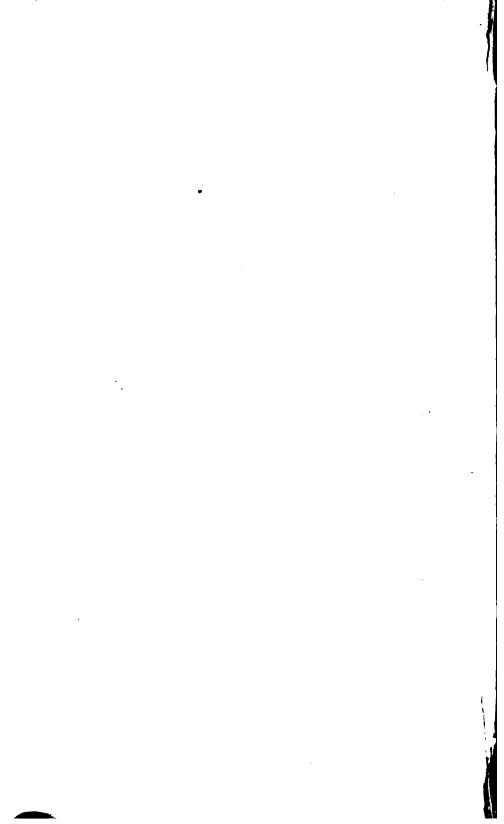
"Mr. Thomason, at Mr. Chippendale's, Salisbury Square, London." 1796.

On the Thursday I waited upon Lord Spencer with my model, which filled one half of the coach, as it was placed in a large case, under lock and key. A servant carried it into Lord Spencer's room of business, called the Board, and Lord Spencer desired to see me; there were many gentlemen and general officers there. worked the model upon the table, and explained the nature of its general action, taking special care to state to the Board of Officers present with his Lordship, that I was prepared to know that a vessel so made could not possibly succeed unless in still water; that it would be essential to know how many feet the vessel would be propelled at each stroke of the engine upon what is called a still water. I explained how to get the train of wheels to move the rudder, at a given space of time, at the angle required, and to return the rudder to its former position at the period wished. Many compliments passed as to the novelty of the idea, and the ingenuity displayed; but, observed one of the Artillery present, addressing the First Lord of the Admiralty, "My Lord, I cannot withhold expressing my admiration of the thought and novel mode in the arrangement of the machinery, and every merit is due to the inventor; but I am clearly of opinion that one important point will be fatal to its success-that the sea near any harbour is never sufficiently quiet to admit of the vessel being propelled and steered compatible with any calculation."

From this observation I evidently perceived that no absolute trial, upon a proper scale, would be adopted.

Lord Spencer was very polite, and said he would retain the model for a short time, to afford an opportunity for some of the Lords of the Admiralty to see it.

The Fire Ship to row against Wind and Iide propelled by a Steam Engine.



Not hearing anything from the Admiralty for about a 1796. month, I was induced to appeal to the Admiralty Board for remuneration of my expenses, presuming that I had succeeded in the attempt, so far as my part of the mechanism went, after receiving so many flattering compliments. This application brought the following reply.

"Admiralty, 6th Nov., 1796.

John Harrison

"Sir,

"Lord Spencer has received your letter of yesterday, and has directed me in answer to it to say, that, though he cannot but commend the ingenuity which you have displayed in your invention, he is afraid it cannot possibly be practically useful; on which account his Lordship very much doubts whether it would be justifiable in allowing a compensation for it. He will, however, lay your letter before the Lords of the Admiralty, for their consideration and opinion.

"I am, Sir,
"Your very obedient humble servant,

"Mr. Thomason, Birmingham."

Here ended this matter, I having been given to understand that no remuneration could be made for any invention until it had bona fide done the thing intended. Indeed I was told by an influential person in the Admiralty, that even admitting the success of any new and eligible invention, the inventor must wear out a year or two's patience, in absolute petitioning, before he would receive the grant of one farthing.

I made up my mind that I would, for the future, apply

1796. my thoughts to inventions upon a scale best adapted for general purposes, and not for the Government.

At this period, 1796, fine dress steel buttons for the Court were much in demand, and as all attempts had failed in the trial of converting English iron into steel, I was aware how valuable such a discovery would be if it could be attained.

I was pursuing a course of these experiments in a small furnace, just at the moment that his Excellency Charles Frederic Bremer brought me a letter of introduction from his Excellency the Swedish Ambassador, I invited him to the subject, as the Hon. Claes Grill. all our steel was at that time made with the Swedish Dannemora iron. I could compel the English iron to absorb two or three per cent of carbon in the cementation, but the steel produced was red, short, and full of flaws and cracks. The difficulty with me was to be informed what extra metallic substance formed a component part in the Swedish iron, rendering it peculiarly adapted for conversion into steel. The Hon. Mr. Bremer kindly promised to send me some specimens of Dannemora iron ore on his return to Sweden. In November, 1796, I received the following kind letter from him, with eleven specimens of iron ore; and a Swedish Dictionary called Bergwerck's Lexicon.

" Edward Thomason, Esq., Birmingham.

"Stockholm, Oct. 28th, 1796.

"Dear Sir,

"It is about a week since I sent you by Captain Klingström, of the ship Nautilus, who was then going to London, one box, enveloped in black waxed linen, with your address, and marked ———, containing eleven different specimens of Dannemora iron-ore,

and Mr. Rinman's Bergwerck's Lexicon; I also sent 1796. you a letter concerning it.

"This box Mr. Claes Grill, in London, will receive, and forward to you by the first opportunity; I have mentioned to him the contents, that it might not be delayed at the Custom-house, and hope, therefore, you will soon and safely receive it.

" I shall be happy if this is to your satisfaction.

"Your sincere and obliged friend,

Carl Frodrie Bremery

" Mr. Edw. Thomason, Birmingham.

" London, 4th Feb., 1797.

1797.

"Sir,

"According to your request by your esteemed favor of the 28th ult., I have enquired about the mentioned box, which at present is at the Custom House. On Monday or Tuesday next I may be able to forward it to you, and I have, in the mean time, this day made petition at the Custom House about it. I remain, with regard,

"Sir, 'Your most obedier

"Your most obedient servant,



1797. In January, 1797, I perfected a working model of a windmill with one sail, for the purpose of pumping water from ponds, &c.

The sail always placed itself at right angles to the wind; the centre of the mast moving upon an axle, permitted the sail to be forced alternately down right and left, describing about 90 degrees right, and 90 degrees left. The top of the mast was attached to two sliding iron rods, which alternately worked the handles of the pumps. The machinery at the lower end of the mast worked in a circle of about 180 degrees, corresponding with the arch described by the whole range of the sail.

What I conceived was that a machine of this nature placed on a pond for raising the water, and afterwards used for the turning of a water wheel, might be made available for the grinding of corn, without much expense.

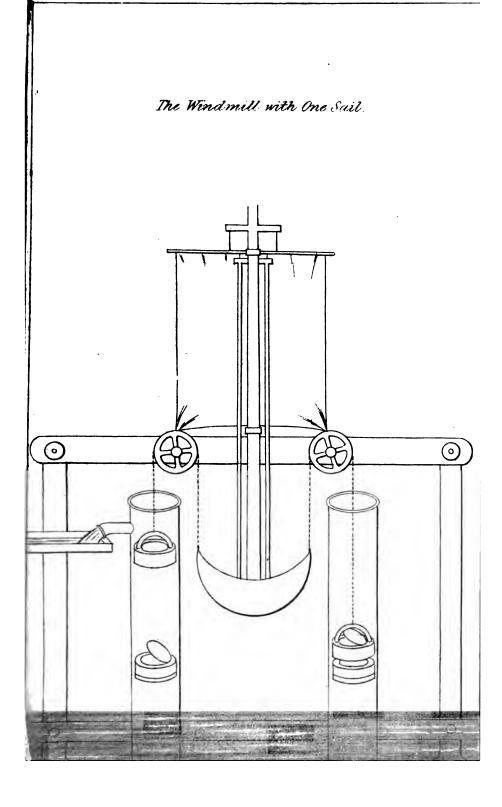
The model worked extremely well, with a moderate wind, and soon pumped the water out of the tub. I was much complimented and flattered by the approval of it by many engineers, if its force could be placed under any controul, when moved by a high wind. This was found impracticable, for even the sail of the model, which was only  $4\frac{1}{2}$  feet in height and 2 feet wide, displaced the machinery by a gust of wind.

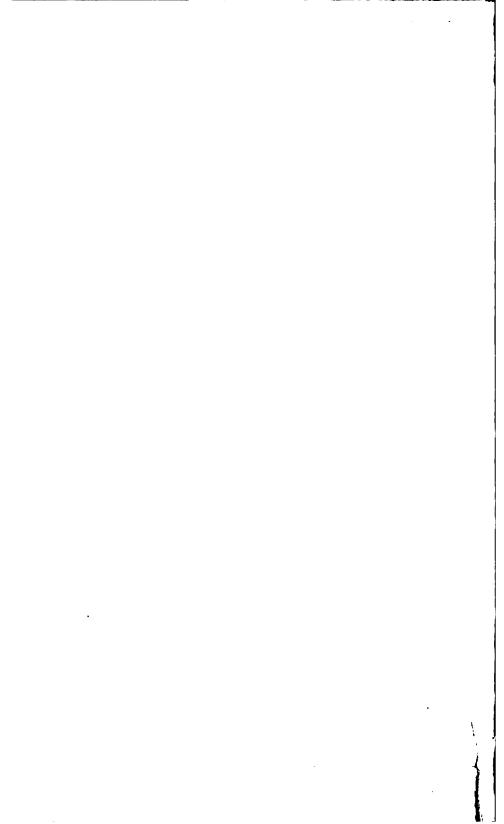
I did not take out a patent for this invention, but I presented it to the Society of Arts at the Adelphi.

The non-success in the inventions which I have described, although attended with several hundred pounds expense, did not damp my ardour, nor arrest, for one day, my inclination and perseverance to produce some novelty, both interesting to the public and lucrative to myself.

I next turned my attention to carriage steps which

1798.





should move up and down, and fold and unfold them- 1798. selves, by the action of opening and shutting of the carriage door, presuming that every physician and surgeon keeping a close carriage would adopt them. succeeded in bringing my invention to act in 1798. I had the honour, through Mr. Hatchet, to show them to George III., at Windsor; and Messrs. Hatchet and Co., Leader and Co., and Mr. J. Vidler, the three leading coachmakers in London, wrote me the following letters, expressive of their opinion of the invention, which they permitted me to publish. For this invention I went to the expense of obtaining his Majesty's Royal Letters Patent.

"Rapport de Messrs. Hatchet and Co., Faiseurs des Carosses de sa Majesté le Roi de la Grand Bretagne.

"M. Thomason,

" Monsieur.

"J'ai reçu votre Marchepied à Patentes, lequel descend & se replace par l'action de la portiere en s'ouvrant & se fermant. Je l'ai fixé à ma propre voiture pour m'assurer qu'effectivement elle fonctionne ainsi que votre description l'affirme; il a eté minutiesement examiné par moi & mes Associés, & nous pensons que l'invention est très digne de l'attention de chaque famille, & en particulier des medicins; bref, nous la considerons comme une pièce de mechanisme très judicieuse et utile & nous souhaitons sincérement qu'elle ait le succès qu'elle merite.

"Jai l'honneur d'être,

"Pour moi-même & associés.

" Monsieur.

"Votre très obeissant serviteur.

" (Signé)

JEAN HATCHET.

"Londres, Janvier, 1799."

1799. "Rapport de Messrs. Leader & Co., Faiseurs des Carosses de S. A. R. La Prince & la Princesse de Galles, les Ducs de York & Clarence, &c. &c.

" M. Thomason.

"Monsieur,

"Nous prénons la liberté de vous informer que nous avons examiné vos marchepieds a patentes, que vous nous avez envoyés pour notre inspection; nous les croyons faits sur un très bon principe, particuliérement pour ceux qui desirent se passer d'un domestique; certainement nous saisirons toutes les occasions à les faire voir, & nous ne doutons pas que leurs effets les recommanderont.

#### "Nous sommes,

"Monsieur,

"Vos très humbles et obeissants serviteurs,

"(Signé)

LEADER & Co.

"Londres, Janvier, 1799."

"Rapport de Mons. J. Vidler, Manufacturier des Carosses Royales de Postes aux Lettres.

"M. Thomason,

" Monsieur,

"Ayant minutieusement examiné le principe de vos marchepieds à patentes, je les trouve du meilleur mechanisme que ce pays ait jamais produit, & je n'ai aucune doute qu'ils ne deviennent d'un usage général, ainsi qu'avantageux pour vous & le public.

"Je suis,

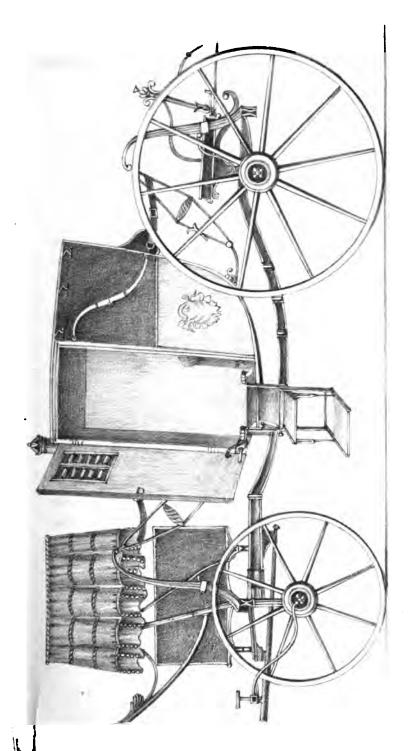
"Monsieur,

"Votre très humble serviteur,

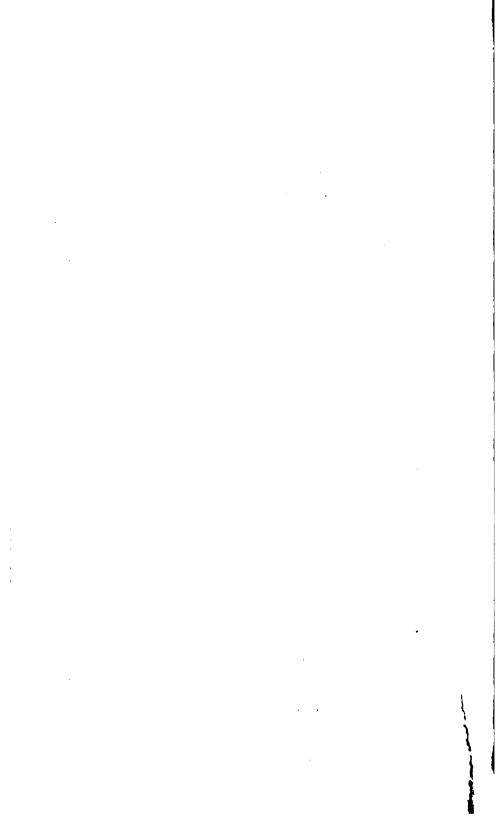
"(Signé)

J. VIDLER.

"A la Manufacture Royal de Carosses de Postes, a Londres, Janvier, 1799."



THE AUTHOR OBTAINED A PATENT FOR CARRIAGE STEPS, WHICH UNFOLD, AND FOLD UP, BY THE ACTION OF OPENING AND SHUTTING THE CARRIAGE DOOR.



This invention was made public through the medium 1799. of circulars.

I put a pair to my own carriage, which I used for twelve years. I received orders for many for the Continent, and from physicians in this country; but the great expense of the steps, and the difficulty that coachmakers experienced in putting them to carriages, set the coachmakers against them; and it so occurred, at this period of 1799, that the carriages were principally straight, flat-sided, which form was absolutely essential to the fixing of these steps, but in the following year the doors of the carriages were made of a bulged form, not at all adapted for the peculiar machinery requisite to admit the roller affixed at the bottom of the door to work easily upon the curved lever.

I do not think that I made and sold one hundred pair, thereby not realizing a profit, but some little less, by the invention!

I next turned my attention to the improvement of the locks of fowling-pieces. I was aware that many accidents occurred by leaving guns charged in a room, and the common custom with sportsmen during their morning's walk, shooting: they stopped at some house to lunch, but never thought of drawing the charge, hence the numerous accidents which occurred by incautious and ignorant persons taking hold of the gun in the absence of the sportsman. It was obvious that the gun frequently missed fire in consequence of the flint not presenting a proper angle to the lever. I made the cock part of the lock, so that what are called the jaws, which hold the flint, should slide off the spindle part by the pressure of the thumb and finger upon a spring; thus, when pulled off, which could be done in a few

1801. seconds, the gun would remain powerless, and could not be used except by the person who was in possession of the flint-holder. And another improvement in the lock was, that the jaws turned round upon the spindle part of the cock, and were regulated by a small racket work with a catch, so that by turning the wheel with the thumb and finger, the flint might be adjusted to whatever angle was required, realizing an almost certainty of giving fire. But it did not answer, although approved of by several eminent gunmakers, for sportsmen were not aware of any danger in leaving their guns loaded, nor any danger by hacking the flint, although the gun was loaded, for detonating locks were not invented at the period of my patent, and I never sold enough to pay the expenses.

I now turned my attention to the improvement of the corkscrew. At this period, 1801, it was a kind of fashion for persons to draw the corks of the wine even at their own table, and which not only required some strength and skill, but was sometimes attended with accident, by the breaking of the neck of the bottle, and, furthermore, it was next to an impossibility to take the cork from the worm without soiling the fingers. To avert these two inconveniences, I directed my improvements, and I produced a combination of the three screws working together, and following each other, so that, on piercing the cork with the point of the worm, and continuing to turn the handle, the cork was drawn out, and by turning the handle the contrary way, the cork was discharged from the worm, and fell into the fingerglass. I obtained his Majesty's Royal Letters Patent for this invention, under the name of the "Patent neplus-ultra Corkscrew." I enjoyed the privilege in the

manufacturing and sale of these for the term of fourteen 1801. years. The patent answered well, and it not only made my name known as the inventor, but was the means of introducing other articles made in my manufactory, as fine buttons, and jewellery, and steel work. It appears that I made during the fourteen years about 130,000, and a larger number has since annually been called for, owing to the very great reduction in the price. In 1801 the shopkeepers in London sold them at one guinea each, but in the course of ten years they were sold at the low price of 4s., which rendered the price to be within the reach of all classes. The Earl of Mountnorris (then Lord Valentia), on returning home from his celebrated travels in India, was so kind as to relate to me an anecdote which occurred at some small city on the borders of the Red Sea, during his short stay there for refresh-He heard the native servant call out, "Bring me the Thomason." His Lordship enquired if a person of that name was there, when his Lordship was answered, "The man was only asking for the machine to draw the Thus do the Birmingham manufactures find their way into the remotest corners of the globe. Mr. James Watt, the celebrated engineer, paid me a high compliment for this novel mode of applying the three screws.

In 1809 I invented the sliding toasting-fork, some with one, two, or three slides, within a handsome japanned handle, common now in all the shops.

I also invented one, that by the action of drawing the slide the same movement raised a shield from off the prongs, and upon shutting up again of the slides this action moved the shield over the prongs again.

I also invented a third kind, which was that the three

1803. prongs collapsed together, which, on the shutting up of the slides of the fork, drew the same into the mouth of a snake, the head of a silver snake being attached to one end of the outer slide or handle.

The above were made in silver, gilt, plated, and brass; and large quantities were sold even by me; but, as I did not protect this invention by patent, thousands were made and sold by other manufacturers.

During the year 1803, I put up a complete machine for drawing tubes in a new and peculiar way. The radius of the wynch connected with and governing a series of wheels gave the machine great power.

This mode of drawing tubes led to much novelty in invention, and produced new objects of manufacture in my establishment. In all cases I kept the different trades in separate rooms or workshops.

This led me to another invention, and for which I obtained a patent, viz., the sliding *hearth* brushes, which I called, in my specification of my patent, the

# "Non Constat."

These were made of plated, gilt, bronze, brass, and steel, the case generally of papier machée.

The patent answered extremely well; and it was subject to an endless variety of patterns, the cases being painted in any device.

In watching the operation of drawing brass and copper tubes upon the mandrells, I found that it required as much power to slide off the hollow tube from the mandrell as was required to draw it on. The pushing it off was done by forcing a circular collar against it, and it required the whole force of the machine to dislodge it; and finding that the union of copper and iron (or any two metals) were firmly attached by pressure, provided

that, in the action of pressing them together, the air 1803. should be exploded or forced out. I began to consider what was the phenomena of soldering two metals together, because, in the case of soldering, no pressure was used, and yet, by the introduction of a third metal, as A, which fused at a lower temperature than B and C, B and C would be firmly attached; and as there was no affinity existing in either of these metals for each other, the cohesion must be made by metal solder, A, running into the interstices of the metals, B and C, the air being totally expelled during the operation of soldering by the blast of the ' lows upon the heated metals to be attached. stripping B and C so soldered, it was plainly seen, by a high magnifier, that the globules of the solder, A, had penetrated into the indentured fissures or grainery of the surfaces of the copper, B and C, which was the sole cause of holding a soldered piece together. It then appeared to me that pressure must have the same effect, provided the air was expelled at the moment, and as the collar of the machine would move upon the sheath of copper tubing, while the solid iron within the sheath would travel with it, the air was expelled, and, at the same moment,-indeed, in part of a second of time before,—the collar pressed the tube upon the solid rod!

I perceived, then, that where strength and cheapness were required, in plain, circular, and hollow rods, which should, or would, appear like solid brass or copper, this new idea might be turned to some account,

- 1st. In the making of copper bolts for shipping.
- 2d. Making solid brass rods for stair carpets.
- 3d. Making solid brass rods to go round the top of a room to suspend pictures.

1803. 4th. For curtain rods for drawing-rooms, of any length or thickness.

And 5th. For balustrades for staircases.

It so occurred that, whilst I was making these experiments, and had actually brought some of them to the finish, and that I had sold a few of the ship-bolts to a ship-builder, to make the trial for me, Mr. Benjamin Cook, of Birmingham, a partner of Mr. Thomas Attwood, in the brass-foundry way, had actually obtained a patent for the same thing. On proving to Mr. Cook that I had invented, finished, and sold some of mine before he had even thought of the plan himself, Messrs. Attwood and Cook, to prevent their patent becoming void, gave me their letter of licence, permitting me to make and sell whatever I might approve, during the fourteen years of the patent. I manufactured many splendid stair-cases for the nobility, viz., for the Queen of Wurtemburg, Marquis of Westmeath, Lord Forester, and numerous others of the nobility and gentry; and, as most persons visit Cheltenham, I manufactured the brass stair-case at the Plough Hotel, as one of the first trials, and which method succeeded. This mode of manufacture led to the brass bars, or railing, at the front of the London shop windows. It gave strength, and the appearance of solidity, when, at the same time, the whole was only of sheet iron, except the thin casing of brass drawn over by pressure.

I mentioned my method of covering iron bolts with sheaths of copper to the ship-builders, when both the ship-builder and myself thought of much success, and the ship-builder was in extacy when he discovered that the bolts drove in well without stripping;

but we had both forgotten the action of the muriatic acid 1803. of the sea water insinuating itself, by degrees, between the iron and copper, which, in a short time, would render the bolt slack and unsteady, which prevented a second trial.

bolt slack and unsteady, which prevented a second trial.

In 1803, I applied the drawing of tubes to place into the walking cane (which every fashionable gentleman then carried) a set of tubes that, by the action of the handle of the cane pulling up towards you, and by pushing it back with some force, caused a piece of fungus, which lay at the bottom of the tube, to take fire. The phenomenon was by the sudden concussion of the air upon the saturated fungus. The sponge or fungus would

which lay at the bottom of the tube, to take fire. The phenomenon was by the sudden concussion of the air upon the saturated fungus. The sponge or fungus would last for above one hundred trials, and the invention was merely adopted by those gentlemen fond of smoking cigars in their country walks. I did not pray his Majesty for a patent for this, because the knowledge of compressing air to obtain a similar result was stated in the Philosophical Transactions, and, therefore, so far, I could not lay claim to the principle.

The sale of these canes was very limited; but, being obliged to put up machinery for the boring of them, it led me to the idea that dirks might be placed in (sword) canes, and pass through the ferule at the bottom by the action of pulling the top part of the cane towards you, and then pressing it down again to its place, which disposed the unexposed machinery in the inside of the cane to cause a short sword to protrude through the nose of the ferule, and become an instant guard, or defence, in walking in the night, or through woods and forests.

I obtained his Majesty's patent for this invention, and I purchased, at the East India House, many thou-

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1804. sands of what was called the rattan cane, to be filled with this patent machinery.

The invention answered very well, particularly in foreign countries.

In December, 1804, the French papers noticed an invention, done by a Parisian, of an elegant machine, that was placed upon the loo or other gambling tables at Paris, and which was placed there as a substitute for the throwing of the dice, if any party better approved of this method; that it consisted of two horizontal wheels, with the spots of one to six marked upon them; it was set in motion by releasing a double semicircular spring, which impelled in motion the two wheels, yet with different velocities. The motions were stopped instantaneously, by stopping the action of the spring; if not stopped, the wheels continued for about a minute in motion, gradually decreasing in velocity, until they came to a close.

At this period was upon a visit at my house a particular friend of Mrs. Thomason's, who was in a declining state of health, and sought the advice of our celebrated physician, Dr. Johnstone. This lady was partial to the game of back-gammon, and my perceiving that the noise of throwing the dice was a little annoying to her nerves, it appeared to me that I could apply the principle stated in the French papers to be an elegant substitute for the dice-box, so as to prevent all noise. In a week, I accomplished this to my mind, and placed in a flat round box, like a snuff-box, which was set in the centre of the backgammon board, and became convenient for either party to move and stop the spring, exhibiting, under the square hole of a silver plate, the numbers or appearance of two distinct dice.

I invoked Sir Vicary Gibbs, then the Attorney,

General, to exhibit my petition to the King, to grant me a patent for this novel introduction. Sir Vicary, after passing many compliments on the invention, said, that, in a moral point of view, he could not advise his Majesty to grant his royal letters patent for this beautiful invention. He thought it might get into improper hands, and encourage the unlawful practice of gambling; but, he observed, that in the hands of the well-disposed, and in private society, it would be very acceptable with the back-gammon table. He should be obliged to me, if I manufactured them for this class of persons, to let him have two of them. I presented Mr. Watt with the first.

"Heathfield, Jan. 5, 1804.

## "Dear Sir,

"I received your kind note on Saturday, accompanied with your very ingenious dice-box, and feel myself very much obliged by your kind offer of it as a present; which, however, I hope you will excuse me from accepting in that light, not being conscious of having merited it, and that you will allow me to settle for it when we meet, which I hope will be soon.

"Mrs. W. and myself should have done ourselves the honour of calling upon you and Mrs. Thomason before now, but have been hindered by bad weather and indifferent health, which at present confines Mrs. Watt to her room; she, however, desires to join me in wishing to you and Mrs. Thomason many happy years, and that success which your ingenuity so well merits.

"I remain, dear Sir,

"Your obliged servant,

James War

At this period, his Royal Highness the Prince Regent 1804. visited Cheltenham, and some one of the noble guests who passed through my manufactory was shewn the novelty, and imparted the same to the Prince. consequence was that Colonel M'Mahon wrote to me, by the command of his Royal Highness, for six of them, which I was enabled to forward by the same evening's coach. This flattering order gave me the gratification of first placing his Royal Highness's name in my ledger; a circumstance I did not omit, on proper opportunities, to notice. It gave, however, eclat to the invention in the proper society, and I withheld, for years, sending any of them to my agent in London, but kept them solely at my own establishment. Although the invention was left open, no one, to my surprise, followed me in making them. I kept two persons almost constantly at work at them, and they were sold as fast as they were made.

In July, 1804, Joseph Robley, Esquire, the then Governor of Tobago, brought me a letter of recommendation. It was of that description that I gave up two days to introduce him to many of the principal manufacturers, whose establishments he visited, and with whom he had much conversation respecting the amount of wages, &c.

Mr. Robley said, "I am directed to visit your manufactories in Birmingham, and to note down the average wages of each class or kind of manufacture paid the operatives, their mode of living, their moral and religious acquirements, their hours of work, and apparent state of happiness." It was at this period that Mr. Wilberforce was addressing the Parliament, night after night, in a strain of unequalled eloquence for the abolition of the slave trade. I was, in common, I believe, with my towns-

men, a strong advocate and great admirer of the principles which actuated Mr. Wilberforce's philanthropy,
and I was aware that the Governor entertained a
different opinion. On his quitting his hotel, on the 24th
of July, he addressed to me the following letter, which
may exhibit the opinions, perhaps, entertained by the
Governors of the West India Islands, and the obstacles
Mr. Wilberforce and his friends in Parliament had to
contend with:—

## "Birmingham,

"Swan Inn, Tuesday, 24th July, 1804.

"Dear Sir.

"I hope Mrs. Thomason and yourself did not take cold at the Theatre last night, and that the young gentleman is well, and in a singing humour this morning.

"As the Slave Trade is not only of very great importance to the inhabitants of the West India Islands, but also to the commerce of Great Britain, even so much so as, in my opinion, the loss of the trade of those islands would absolutely affect the revenue of Great Britain, as well as its naval power, it has always astonished me that the question on that subject should have been brought forward now, with the dreadful example of the effects of similar principles at Saint Domingo before the eyes of the House of Commons, and with almost an avowal of these canting abolitionists not to stop at abolishing the trade to Africa, but to proceed on to emancipation. I think the pamphlet which I have now the honour to send you is well written, and completely answers the most favourite arguments of these misguided abolitionists. At your leisure, will you do me the favour to read it? And, if you approve it, let such of your friends as you may think proper peruse it

1804. also, for I am convinced that every effort which can be made ought to be tried to thwart the diabolical views of these canting hypocrites in the House of Commons, as I am certain they intend to bring in the bill again the next session.

"I now send Mrs. Thomason the Yorkshire Concert, which has much humour when sung by Emery.

"My niece unites in compliments to Mrs. Thomason; and I remain,

" Dear Sir,

"Your very obliged and obedient humble servant,

Joseph Robley

"Mr. Thomason."

Governor of Tobago.

During this year, Elfi Bey, the chief of the Mamelukes, visited my works, and, amongst his jewellery, he had a piece of amber with a fly in its claw, and for which I exchanged with him some pieces of jewellery.

1805. During the years 1804 and 1805, I was one of the captains of the Birmingham Volunteers, accepted by me in a spirit of loyalty to my sovereign; and, like numerous others, in November, 1805, finding that it interfered with the attendance essential to my manufactory, I resigned, when I received the following letter:—

"Sandwell, Nov. 1, 1805.

"Sir,—I beg to express my regret that your other avocations will not allow you to retain your commission in the L. B. V.

"I am, Sir, your obedient servant,

Salmouth

"To Edward Thomason, Esq.,

"Captain in the L. B. V."

Every young mechanician has, probably, turned his 1805. thoughts to that desideratum of inventions-"the perpetual motion," by the large premiums offered by our Government and others, and the merit there would be in obtaining that motion, which was by older heads deemed impracticable. I entered the arena, and, after many experiments, had reason to hope that I should be successful. I went to some expense in erecting the machinery, which, upon trial, proved abortive. This invention, and putting up of the mechanism on a proper scale for trial, took many months, and the trial was not made until May, 1806.

In December, 1806, the Count Lorentz, the Danish 1806. Chargé des Affaires in London, came to Birmingham, to offer a partnership with him in the new patent, which he had just taken out, of the instantaneous light, which was effected by the decomposition of zinc with muriatic acid, placed in a small bottle, and the gas generated was carried by a small tube under a water bath, which water bath compressed the gas, and forced it to escape through the same mouth by the turning of the handle, and coming in contact with an electric wire, while the very action of the turning of the same handle moved two metallic plates. I informed the Count that I did not choose to become a partner with any one, but I had no objection to purchase it, if I approved of the price. He was to inform me of his ultimate determination in a few weeks. There was much merit in the invention, but, like all others, unless such a machine can be managed by a servant, it will operate against its sale. On the 4th of April, 1807, the Count wrote me the following letter respecting his patent, and, like most other inventors, (commonly called by the operatives, schemers) furnished

1807. me with a list of new inventions which he had in embryo!

"London, the 4th April, 1807.

"Sir,

"Having entered into a negotiation with a very respectable party of this town on the subject of my patent instantaneous light, which negotiation was commenced in the interval of the time which you took to declare your intention of sending your partner to town, instead of coming yourself, I am prevented from saying to you at present any more on that subject; that negotiation not being yet terminated, and depending only upon the adjustment of a few immaterial terms, the adjustment of which will most probably not cause the parties to separate otherwise than as friends.

"I have, however, entered several caveats at the Patent Office for different new inventions of mine, for which I intend taking out the patents, unless some gentleman of business should offer me such premiums for the purchase of the patent right which may induce me to forego my prospective advantage in their favour. One of those inventions is a patent candlestick; another, patent spurs, or any improvement thereon; a third, for an improvement on fire-irons, or either of them. Any gentleman wishing to confer with me upon the premiums to be given for such surrendering of my rights may choose an impartial and respectable umpire, who, with a gentleman of the same kind chosen on my part, may settle the terms between them by common consent.

"Should you incline that way, I request you will inform me thereof, as I do not want for applications, and should like to give you the preference, if not against my personal 1807. interest.

"I am, Sir,
"Your obedient servant.

"Chargé des Affaires

"For Denmark.

"Mr. Edwd. Thomason, "Birmingham."

In 1807 there was the greatest difficulty with commercial men to obtain change in silver, but particularly in copper, to pay the work-people their wages. During the year, I put up machinery for the manufacturing of tokens or coins, because the distress and annoyance were so great with the manufacturers, that many principal establishments were determined to pass their own tokens of copper, and some of silver, and made payable at their own works, sooner than that their workmen should attend in dozens at a public house to obtain change. I first manufactured one for my own establishment; but it was found so troublesome, when they were delivered in twenty shillings worth for payment, that in less than six months all were melted down, except in the iron districts, which continued for twelve months longer, particularly at Mr. Fereday's works, which tokens of one penny were manufactured by me to the amount of from £5,000 to £10,000, and for different establishments in Wales; and at about this period I received an order from the African Company in London to make the silver coinage for Africa.

In 1806, Sir Samuel Auchmuty captured Montevideo,

at the mouth of the River Plata, by storm; and he addressed a letter to "the Mayor of Birmingham," (the principal Magistrate being then, however, only "High Bailiff") recommending the manufacturers to take advantage of the new opening offered as an outlet for their hardware goods; and stated that what few hardwares were to be seen there sold at a quadruple price, owing to their being obliged to pass through old Spain, and to be entered as Spanish manufactures. The excitement which this opening caused throughout the town was extreme, inasmuch as Government expressed their determination to support the station so contiguous to the great commercial city of Buenos Ayres.

Almost every manufacturer prepared to speculate, and, supposing that every unfashionable article of their stock would there find a purchaser at some remunerating price, and as General Whitelock was ordered to proceed with a large army to establish our claim to Paraguay, all was bustle for some months in cleaning up old stock, so that one half of the articles sent were ill assorted, and not at all adapted for the climate or the wants of the people. speculation was very trivial. I had a pair of dies engraved; on the obverse was Joseph, Mary, and the Child, with appropriate legends in the Spanish language; and I sent 5,000 medals, ready ringed, adapted for the natives to suspend round their necks. The fleet of ships of war and of merchant vessels only arrived, however, to witness a most disgraceful capitulation. was one clause in the treaty, and only one, that was favourable to the consigners—that six weeks should be given to the merchants and their supercargoes to dispose of their consignments, without molestation, in the town of Buenos Ayres. This period was a contracted short time even to unship the cargoes, consequently it was 1807. supposed that one-fifth of the consignments came back again, with all the appended expenses and charges of insurance, freight, &c., to the utter ruin of hundreds.

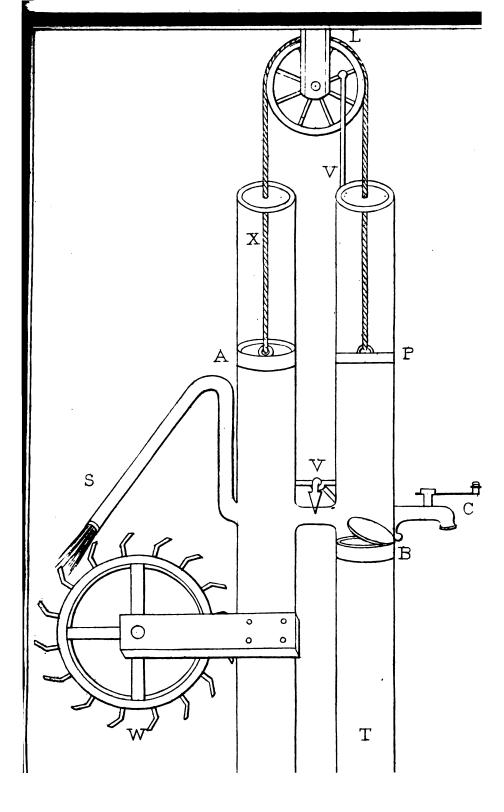
There was one person, absolutely, who consigned 300 warming pans to a country where every one called out for ice instead of caloric. The consignee not being able to get one purchaser, was driven to begin to repack, when, accidentally, a Brazilian sugar-maker noticed them, and, considering that they were an improved inventtion upon the ladle to lift out the saccharine juice of the sugar-cane from the boiler, he bought the whole, realizing a large profit to the consigner. There was another solitary instance of success to a Birmingham speculator in broad-cloths. The draper had already realized a fortune, and had, as usual, on the approach of retiring, began to sell his stock off at prime cost, and it struck him that nothing was so likely to clear his warehouse and shop at once, as to send the whole upon a speculation to Buenos Ayres. However, to make the consignment of more importance, he went to every draper's shop, and purchased every remnant which they possessed at half price. The agent, or young man, whom he sent with these goods, happily got them landed early, but could not find a wholesale purchaser for a day or two, and, perceiving that, if the goods were unpacked, he might sell a good deal piece-meal, he took a a large room, which was hourly thronged with little customers to buy from one to two yards; he sold the whole of the consignment, realizing a profit for his employer of £10,000. The agents for the extensive consigners, not choosing to stoop to such degradation, had to carry back to England their consignments, as

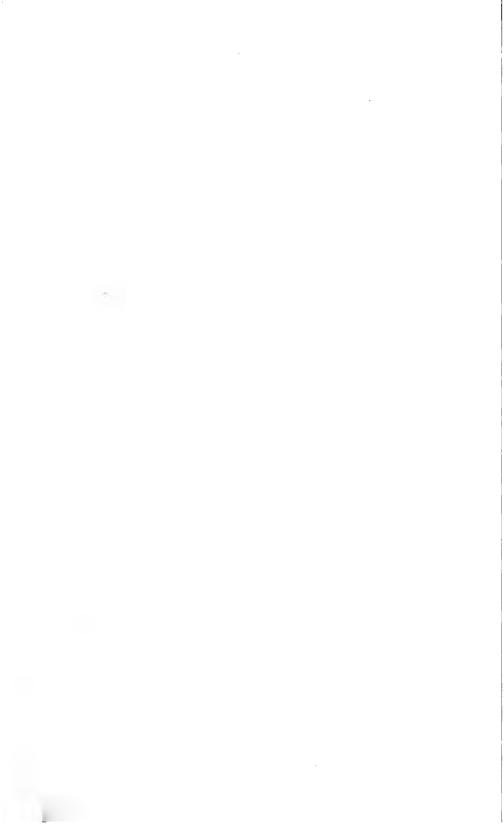
1807. well as my 5,000 medals, which were immediately consigned to the melting pot for resuscitation !

At this period I turned my attention to a thought which struck me about gaining some mechanical power and convenience, with the assistance of a boy, to turn the lever only of a cock.

I made a small model, which seemed to act. ting that the spring land, near which the machine was erected, was higher than the machine itself, the water, in rising up the iron pipe, T, would force open the valve, B, and would push up the piston, P; the rope of the piston, P, would allow the descent of the valve, A, from the top of the tube, X, to the situation of the place where it now stands in the corresponding iron tube, X, as at D, in the drawing; and, at this moment, the connecting iron rod of the valve, V, would be opened by the radius formed by the pulley, L, which would allow the water in the pipe, T, to syphonize, and stand in the pipe, X, upon a level with it. A boy must now turn the cock, C, which, with the same motion, instantly shuts the connecting valves, V and B, and allows all the water in the iron tube, from the valve to the piston, P, to run off. The water in the iron tube, X, syphonized upon the wheel, W, from whence a spindle was attached to turn machinery. The boy now turned the cock, C, to shut V, but to open valve B, when the iron tubes are again filled, and in this way continued their action.

It was found not to answer, upon two mechanical principles: first, the action of the rising and the discharge of the water became sluggish, and it is an axiom, that whatever you gain in time, you lose in power; what, in mechanics, is clearly proved, "that a double velocity in the same given time, in the same circle, ba-





lances a quadruple power of gravity." Thus about £100 1807. was lost; but it called to my recollection an observation made by the celebrated James Watt, when I was in his study one day. The foreman came to him, with a long face, and said, "Sir, we have, after some days' labour, tried the experiment you desired, but the lever will not act, and no steam comes out." "Well, Daniel," answered the great mechanician, "this is a point gained. We now know that the thought will not succeed."

In 1807, as I was on my road to Sheffield, a courier arrived at the inn upon the road, seemingly in great haste, and, changing his horse, he informed me that Parliament was dissolved the night before. within twelve miles of Sheffield where I arrived in two hours. The contest for the county of York was spoken of as likely to be the most expensive that could be imagined, the candidates being Lord Milton, Wilberforce, and Lascelles. By that night's coach, I wrote to my establishment to get three sets of dies made for medals, the size somewhat larger than a dollar; to keep the die-sinkers at work all the night, when, by the morning's coach, they would receive from me what legend to put upon them, and the blanks could be got ready at the time, and to prepare for upwards of 20,000, with a hole in them for ribbons. This was done, and on the fourth day afterwards, just in time for the election at York, the medals arrived at Sheffield, about five or six thousand for each candidate. I proceeded with them to York, when the three committees took them all. Many hundred pounds was gained by this thought; and as Liverpool was to be severely contested in a few days after York, I made similar medals for the three candidates at Liverpool. They arrived there in time, and were adopted by 1807. the committees with equal success; about 30,000 being required. It was a new thought to have medals at elections. The committees gave away the medals to the voters, and to each medal a ribbon.

In 1807, Christophé, the black general, conquered the whole of the Island of St. Domingo, and made himself emperor, and addressed the inhabitants (blacks) in a speech in French, of which the following is a copy:—

"Haytiens,—La loi vielle sur nous à nommer un bienfaisant ami; elle nous arrache aux complots et aux machinations auxquels nous étions exposés, et sur le point de devenir les victimes; elle nous procure un code nouveau, adapté à notre climat, à nos manieres, et nous arrache pour ainsi du chaos ou nous retomberons en fixant les destinées d'Hayti."

A merchant having just arrived from St. Domingo, being one of those driven away, called at my establishment, and mentioned to me the state of the island, and the energetic character and natural talents of the Emperor, and that certain English manufactures would be required. It appeared to me that speculation might be advantageous if I could tranquillize the hostile antipathy of the Emperor to the English or to any white men. I hit upon the plan of making 5000 medals, with the Emperor's likeness on one side, and his speech on the other; and in three weeks I had them ready to be forwarded by the first vessel sailing for that port.

Having mentioned this to some manufacturers, in Birmingham, Sheffield, &c., they agreed, that, if I would send one of my principal managers with the selection of goods from them, and from my manufactory also, they would each run the chance of the success of sale. We





engaged a portion of a London vessel loading for the 1807. The Emperor was flattered with his speech being struck upon the medals, and accepted, with every courtesy, the 5000 medals. The supercargo was taken ill of the fever, and obliged to be put on board another vessel, and to return home; so he abandoned the goods to the agent there. Christophé, hearing of this, was so generous as to remit the duties, and allow the captain to take back the remainder of the cargo unsold, and which, principally, was not suited to the market, therefore unsaleable. No profit was gained by this adventure, but, I believe, no loss. The Emperor, however, made me his manufacturer for any articles that he might require in the Birmingham line, which kept up a little profitable correspondence with that island.

One order which I received from the Government of St. Domingo was for a large gold snuff-box, with the gold impression from the medal die set in the centre of the lid, and surrounded with pyrites diamonds. The Haytian Chargé des Affaires, who brought over this order, presented me with an extraordinary tamarind stone, having an exact profile (as he said) of one of Christophé's former generals, who was condemned to be hanged upon a tamarind tree in the garden of the palace, near the spot where the general had committed a foul He observed that the tree had ever since murder. produced only three or four fruit, the stones of which bore the exact profile of the departed general, consequently these tamarind stones were extremely sought after. I possess this extraordinary lusus naturæ, mounted with a gold ring, as presented.

In 1807, I made 20,000 medals for the King's party, in South America, to favour the Bourbons; these were

1807. sent through the house of Gordon and Murphy, at a period when a considerable profit might have been expected; but the affairs of their establishment in South America were thrown into disorder, and no tidings could ever be given to whom these 20,000 medals were sold, as the store, or depôt, was plundered. I never speculated or sent goods, on my own account, to foreign markets to any extent, and when I did, three times out of four the goods sold to a loss; and I am confident that speculation, to any extent, is never adviseable.

In the year 1808, Earl Percy sent me a very extraordinary piece of thick japanned leather, and requested I would try some experiments upon this new introduction, as the Earl says, "I have great curiosity in hearing the result, and whether it would like to prove of use in your manufactory; and should you have, any time, any new inventions, a line upon the subject will at all times afford great satisfaction.

"Yours, &c.,

"Sion, 24th Nov., 1808."

PERCY.

1809. M. Boulton, Esq., died this year, viz., 17th August, 1809, at the age of 82; his son, Mr. Robinson Boulton, being desirous to pay every respect to the obsequies of his father, the funeral was upon the most extensive scale. I had the honour of an invitation as one of the mourners, in consequence of my having been a Sohonian, residing there as one of Mr. Boulton's pupils from the age of sixteen years to that of twenty-one. I was flattered by this mark of kindness, and I retain the medal then struck off at Soho, and presented to me, in common with others, as commemorative of the event. As this medal was only of the description commemorative of his death and fune-

ral, I requested my then esteemed friend, Mr. George 1809. Mynd, a nephew of the late Mr. Boulton, to learn, for my guidance, if Mr. Robinson Boulton purposed to make a medal of his late father, for if he did not, I would, at my own expense, engrave dies for one of the finest class, and from the wax model, by Rowe, which I had then in my possession. Mr. Mynd informed me that his cousin

I completed a pair of dies, which were engraved by my best die engraver at that period, viz., W. Wyon, the uncle to the die engraver, Wyon, of her Majesty's Mint. Great pains were taken to obtain a good likeness, and which was happily accomplished to my satisfaction. It was the deepest cut die then extant, and upwards of four inches in diameter, supposed to be the largest medal in Europe, and of the highest relief.

did not intend to make a medal of his late father.

On the reverse, round the legend: —"Born at Birmingham, Sept. 3d, 1728. Died August 17th, 1809, aged 81." And in the centre:—"The liberal and enlightened patron of arts and manufactures."

So remarkable was this medal, that it was to be exhibited one evening at the Royal Society. The Russian Ambassador, having a knowledge of it, brought with him the great Russian medal, which he announced was the largest in the world. It certainly was of greater spread, or diameter, than mine; but a mathematician insisted that the elevations of the work of each ought to be merged, and calculated into their respective diameters. The work in the Russian medal was flat, and the work on mine half an inch higher in elevation, and, therefore, under this mode of calculation, mine had the superiority, and was, undoubtedly, the most difficult

1809. medal to execute. This triumph was highly gratifying to me.

The Emperor of Austria ordered two of them in silver, and afterwards two medals of all the dies that I then possessed, which were very numerous. One series was for his private cabinet, the other for the public museum at Vienna; and this extraordinary medal made me known in Germany as a medallist of some celebrity.

In the beginning of January, 1810, I encreased my manufacturing rooms, to add a new trade—the plating, upon steel, of knives, forks, spoons, &c. There being an idea at this period that there was no affinity between steel and silver, and a medium must be found that would unite with or have an affinity for both. This medium was tin; a thing known before, but not acted upon so scientifically as it might have been. I succeeded, and my manufactures in this novel line were appreciated by the public, as the following letter, dated 26th Feb., 1810, Northumberland House, and signed "Percy," will prove:—

"Northumberland House, 26th Feb., 1810. "Sir,

"Having mentioned your plated steel knives and forks, spoons, and plates in imitation of silver, to a gentleman who is soon to set off for a country where there is much difficulty in procuring earthenware, he is very desirous of taking some out with him. I will be much obliged to you, therefore, to send me, as soon as possible, one dozen of each, with the bill for them, as I should hope that you have, by this time, succeeded in coining plates. Should there, however, be any shop in town to which you send your goods, it would, perhaps, be





better to refer me to that shop, instead of sending the 1810. things from Birmingham, as I could see a greater variety to choose out of. I am anxious, Sir, to know whether you lately produced any new inventions, and, also, whether you have been able to convert the Japan leather to any use. Should the Club which you mentioned to me when I was in Birmingham publish their dissertations or lectures, I should wish very much to see them.

" I remain,

"Your obedient servant,

"E. Thomason, Esq., Church Street, Birmingham."

I dare say that the new manufacture occupied much of my spare time during this year, to see what class of articles could be made to answer; and it appeared that this mode of plating was confined to small articles, and the dinner plates, to which the noble Earl Percy alludes, could not be properly accomplished.

The following letter, from a gentleman resident in Bath, will shew the opinion which that gentleman entertained of the magnitude of my establishment:—

" 24th Sept., 1810.

" Dear Sir.

"Last autumn, when I passed through your town, you did me the favour to allow me to glance over your vast and splendid premises. I now take the liberty to request of you to indulge we with a line respecting any novel and very portable nicknacks of ingenuity, should any such be executed since that period, which 1810. might have been the latter end of last September. I shall remain here four or five days, and then proceed to London. The novel articles I wish to meet with should be such as suit the ingenious and curious part of the gay world. Should your description be such as suit my ideas, I shall, on receiving your answer, commission you to send me some of the articles. You will be so good as to mention the name of your agent or correspondent here, as I shall apply to him for that purpose, and it is to him I will pay for the same in case I should order any to be sent me. I, at the same time, would be glad to be informed of your principal agent in London, so that, when I am there, I might make enquiry for novel inventions as they arrive from the fountain head—your manufactory.

"Please to direct thus:—Dr. Wm. Lloyd, (Camb. Brit.) Post Office, Bath.

" I am, dear Sir,

"Your very obedient and humble servant,

" Bath, 24th Sept.

"P.S. I cannot help thinking I ought to apologize for taking up your time upon uncertainties. However, I flatter myself you will be goodnatured enough to excuse this effort I make, with a view to gratify my friends, in case anything shall appear perfectly novel and original.

"W. L."

The copper and silver change in the year 1810 became so extremely scarce and inconvenient throughout the country, that the demand for the manufacture of tokens, to enable the masters of manufactories and others to pay their workmen their weekly wages, was so great that 1810. I had endless applications for both, as I was at this period making the silver coinage of crowns, half-crowns, shillings, and sixpences for the Douglas Bank, in the Isle of Man. On the obverse was Peel Castle, on the reverse the nominal value. And I manufactured during this year silver and copper tokens for Wales, Brecon, Gainsborough, and Newcastle-upon-Tyne, and for many different establishments in the neighbourhood; upon which the Earl of Lauderdale sent me the following letter, dated

"Dunbar House, Dunbar, "August 31, 1810.

"Sir,

"In a letter I received last night from Mr. B. Thomson, manager of the Burichie Main Colliery, Newcastle, in reply to a printed letter I had sent him, as an issuer of tokens, he says, 'I would recommend 'your applying on the subject of your letter to E. 'Thomason, Esq., of Birmingham, who, I apprehend, 'can give you more general information in relation to it 'than perhaps any other individual.'

"I have to urge this as my apology for inclosing one of my circular letters to you, and to assure you that I will be grateful for any information you can give. A list of the names and addresses of those you know to be engaged in circulating local tokens will be particularly acceptable.

"I am, Sir,

"Your most obedient humble servant,

Millale

1810. Enclosed to me under cover from the Earl of Lauderdale.

## "Dunbar House, Dunbar.

"Sir,

"In taking the liberty to transmit to you the following queries, which I have sent to all the issuers of local tokens in his Majesty's dominions (whose address I have been able to learn), I feel confident, that you will attribute to me no improper curiosity or wish to pry into the nature of an undertaking, in which I am thoroughly convinced that nothing but the necessity of the case, and a desire to promote the convenience of the public, would have led you to embark.

"In the last session of Parliament, I opposed the Bill intituled 'An Act to prevent the issuing and circulating of pieces of gold and silver, or other metal, usually called tokens, except such as are issued by the Banks of England and Ireland respectively.' Much as I could wish for the credit and welfare of the country that a general revision should take place of the principles upon which our circulation is now conducted, I was then, and am now, perfectly convinced, that the measure of annihilating all local tokens in the month of March next, unless it should be attended with some further arrangements, must prove highly injurious.

"I am indeed of opinion, that there is just reason to believe, that if this Act is not repealed immediately on the meeting of Parliament, the commerce of this country will sustain a most severe shock. For, in my view of the subject, it will deprive the master-manufacturer of the power of paying the wages of his workmen, and leave the poorer consumer without the means of dealing

with the retail trader; whilst it would prove a source of 1810. infinite inconvenience to the community at large.

"That there exists in this country no standard silver coin of weight and quality, such as can legally circulate, is a thing universally admitted. In the circular letter which the present Earl of Liverpool, when Secretary of State for the Home Department, addressed to all the Lord-Lieutenants of counties, in December, 1804, the rapid deterioration of our shillings and sixpences was admitted, though even as early as the year 1798 we learn, both from the late Earl of Liverpool and from Mr. Dorien, that the silver coin was in a most degraded state.

"By Lord Liverpool, in his Treatise on the Coins of the Realm, the shillings are said to have been, in 1798, deficient to the amount of upwards of twenty-four per cent., and the sixpences to the amount of more than thirty-eight per cent., when compared with the standard coins of the same denomination; whilst by Mr. Dorien they were described, in his pamphlet, intituled Thoughts on a new Coinage of Silver, as still more impaired in value; for he represents the shillings in circulation to be worth only eightpence halfpenny, and the sixpences to be reduced to the value of twopence halfpenny.

"We know, also, from the witnesses examined by the Irish Exchange Committee in 1804, that at that time twenty-one shillings of the best silver circulating in Ireland was not in value equal to more than nine shillings of the standard coin of these realms.

"To issue silver coin from the mint in this state of our silver currency, and under the circumstance of the relative value which our bank notes bear to silver bullion, could, therefore, only put the public to great 1810. expense, without affording any remedy for the evils that will necessarily result from the deficiency of small money, which the annihilation of local tokens must occasion. Because, unless the nature of mankind should be so far changed as to produce a universal negligence of their own interest, all the coin issued would be withdrawn from circulation the moment it appeared.

"Neither can the issuing of paper, commonly called silver notes, be regarded as a possible means, under the law as it now stands, of supplying the place of tokens; for the issuing of paper, promising to pay any sum in value below twenty shillings, is provided against by the 48th of the King, cap. 88, under very high penalties.

"There appears, therefore, to be no mode, in the present state of our circulation, of protecting the public from the effects of the want of that species of currency used in small payments which the prohibition of local tokens must produce; for neither the Bank of England, nor that of Ireland, have been able to supply a sufficiency of tokens to answer the necessary demands of the country; and those in circulation are issued at a rate that they must be immediately committed to the melting pot by a trifling fall in the value of paper, or, as it would be described by many, by a further small rise in the value of silver.

"In this state of things it cannot have escaped your observation, who have practically considered the subject, that the abolition of the local tokens, which have been generally issued of a value greater in proportion to their denomination than that of our coin in circulation, must operate as a direct encouragement to those numerous coiners of false money, who, notwithstanding the prohibitions of the 15th and 16th of the King, have long

carried on a criminal but a highly profitable trade;\* 1810. whilst it must produce a degree of pressure upon the retail trader, and of hardship upon the poorer classes of the community, perfectly unparalleled.

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"It is a conviction of the great inconvenience and injury which the nation at large must sustain, should this measure be carried into execution in the month of March next, and a strong impression of the impossibility of conducting the business of the country without local tokens, until the Legislature has effected a general reformation in the state of our currency, that has induced me to draw up the queries I now submit to you, in hopes that, by the general information which the answers will furnish, I may be enabled to make such a case as will prove to Parliament the necessity of interfering, to prevent the formidable evil with which the public is threatened: and, I have only to add, that, after receiving this explanation of my motives, I trust that you can have no difficulty in communicating what appears to be so necessary for the success of the cause.

"I have the honour to be,

"Sir,

"Your most obedient humble servant,

\* "See the statement of the extent to which this traffic has been carried by Mr. Colquhoun, in his Treatise on the Police of the Metropolis.

1810.

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#### " QUERIES.

- "1. What is the denomination of the tokens you have issued?
  - "2. What is the average weight of each species?
- "3. By how many dwts. in every twelve ounces is the metal of which they are composed inferior to standard silver?
- "4. What is the average intrinsic value of each species?
- "5. Are there any local tokens circulated in your immediate vicinity, besides those you have issued, and by whom?
- "6. What do you compute to be the total value of the local tokens circulating within the district in which you reside?
- "7. What proportion do the local tokens bear to the half-crowns, shillings, and sixpences, that are in circulation near you?
- "8. What do you conceive to be the average intrinsic value of these half-crowns, shillings, and sixpences?
- "9. Are there many tokens of the Bank of England circulated in your vicinity?
- "10. Has it been common to refuse change for a bank note, unless a large proportion of copper is taken?
- "11. Have you known a premium given to get silver for a twenty shillings bank note?
- "12. Has there been any attempt to issue paper notes or tickets under the value of twelve shillings?
- "13. Have you not known master manufacturers pay their workmen's wages with paper tickets, under the circumstance of a shop being established in the neighbourbourhood, where the workmen were furnished with goods in exchange for those tickets?

"14. Where this has occurred, has it not been customary for the retail trader to settle his accounts monthly or quarterly with the manufacturer by whom the tickets were issued?

"15. Is there a disposition to petition the two Houses of Parliament, at their next meeting, for the repeal of the Act, which has recently passed, prohibiting the circulation of local tokens?"

In 1811, I manufactured above two millions of copper 1811 tokens for Samuel Fereday, Esq., the then greatest iron master in the world. He stated, upon examination before the House of Commons, that he had nearly 5,000 persons in his employ; and he mentioned to me that he had, during any quarter of bad trade, so alarmed the Prime Minister, by informing him that if he could not find employment for his workpeople, he could not answer for the consequence should they be discharged, that these statements frequently produced him East India demands and Government demands for iron. The tokens which I manufactured for him to a very large amount were all of copper, the obverse with the elevation of his different iron furnaces; and he had used to send a carriage to my establishment every other Friday. during the continuance of the pressing of these, to enable him to satisfy his numerous workpeople.

I remember presenting to many gentlemen, who were then become collectors of tokens, one of each of those which I executed as they came out; among the rest to my esteemed friend, Dr. John Johnstone, M.D., and received from him the following note:—

1811.

Solom Monutone begs that Mr.

Thomason will accept his thanks for the obliging and handsome present of a set of tokens, which he values highly as a specimen of the ingenuity of one of his townsmen, and the more as containing a very good likeness, on one of the tokens, of Mr. Thomason himself.

Temple Row, Dec. 4, 1811.

1812.

"May 2, 1812.

"Sir,

"I have to acknowledge the receipt of the packet which you have so obligingly sent me, and to return you many thanks for your kindness.

"You will see that we have succeeded in getting a committee appointed to enquire into the effects of the Orders in Council and licence trade.

"The House of Commons are busy with the enquiry, and we think of making out a very strong case.

"The Lords will begin the enquiry on Thursday next. I suppose you know the state in which the East India business now stands. Mr. Percival conveyed yesterday a massage to the Court of Directors, telling them his determination to insist upon a perfect freedom of trade to every part of the possessions of the Company, and of the King's Government, with the exception of China, and to allow the out-ports to benefit by that intercourse as well as the port of London. To this the Company is not prepared to agree, and the manufacturers of this country cannot agree to it, if they understand their own interests, as China is likely to afford them a more immediate demand for their manufactures than the continent of India.

"My brother, who was long Governor of Ceylon, and 1812 who knows that country, and who knows all the East as well as anybody, tells me he thinks there will be a good market for all coarse steel works, in the shape of scissors, knives, implements of husbandry, &c., &c., at our new acquisition in the islands of the Eastern Archipelago.

"Yours, &c.,
"(Signed) J. MAITLAND."

In 1812, the English army, then in Spain, were distressed for the want of small change. I was applied to, through Mr. J. K. Picard, of the great lead works, at Hull, who, I understood, was appointed the agent, to obtain a peculiar coinage to pass in Spain for the value of one penny English; and which coinage was not to interfere with the coinage of the English Government, or with that of the Spanish Government. It was resolved, then, to have on the obverse the head of Lord Wellington, and on the reverse the following victories:—Battle of Vimiera, Passage of the Douro, Battle of Talavera, Lines of Torres Vedras, Battle of Albuera, Capture of Badajos, Battle of Salamanca.

To make a good likeness of Lord Wellington for this coin, Mrs. Wellesley Pole sent me a wax profile.

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informs Mr. Thomason that she believes she shall be able, in a few days, to send him a wax profile of Lord Wellington, which is very like, and which she begs to have carefully returned to her when done with.

Saville Row, Jan., 1812.

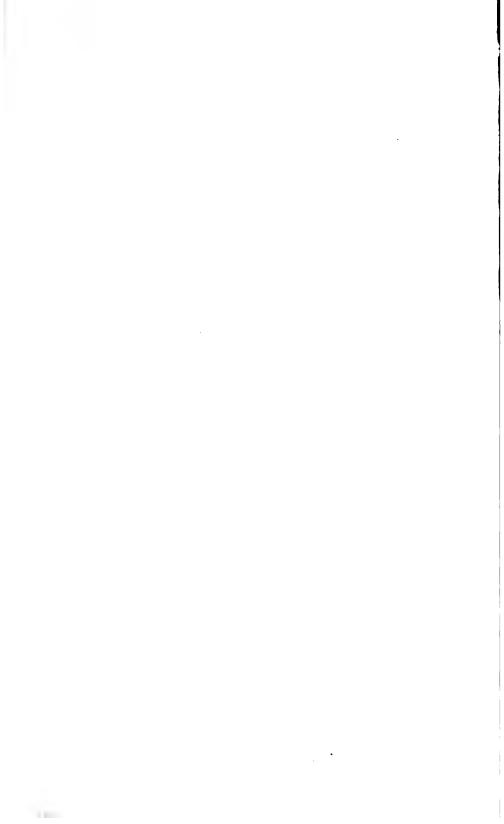
1812. I made upwards of two millions of these pieces in copper, which passed quite current with the army.

In this year an English guinea was worth twenty-seven shillings, according to the Mint price of gold; and so scarce was the coin, and the panic so great, that every maiden lady hoarded up all the gold she received. The Master of the Mint, at this period (the Honourable Mr. Wellesley Pole), could not obtain permission from the Government to proceed with a new gold and silver coinage; the country could not afford the loss which naturally attends the calling in and the re-issuing of a new coinage of gold and silver. Berkley Monk, Esq., M.P. for Reading, in Berkshire, the principal banker at that place, determined upon issuing both gold and silver tokens; and desired that I would proceed with manufacturing as soon as the dies could be completed conformable to his drawings. For the obverse he adopted the likeness of Alfred the Great, with the following motto on the legend:-" PIGNORA CERTA PETIS DO PIGNORA CERTA, 1812." And on the reverse:—"40 Berks Token. Standard gold, 6 dwts. 18 shillings. Reading." On the legend:-"Payable in bank notes, at 6s. the dwt., by I. B. Monk, Esq." The weight being struck upon the gold pieces fully proved the Mint price of gold at this period.

The Hon. Mr. Percival, the Prime Minister, requested that I would suspend proceeding with the gold tokens until he should see Mr. Monk. No more were manufactured, and only £1,600 were struck, which were eagerly bought up at as much as the sum of £5, to be retained as a memento of the only gold token ever struck, and to confirm the price of gold at this eventful period in this country.







The silver tokens were crowns, half-crowns, and 1812. shillings.

After the glorious battle of Salamanca, 22d July, 1812, I finished a large and fine medal of Lord Wellington, of two inches and a half in diameter. engraver had been working at the die of the likeness of the Duke from the wax profile lent me by Mrs. Wellesley Pole, and I applied it to this victory. The first medal from these dies was struck on the morning of the 5th of Sept., and knowing that the Prince Regent was upon a visit at the Marquis of Hertford's, Ragley Park, I dispatched my servant on horseback with all speed to request the Marquis would deliver into the hands of his Royal Highness the case and medal, praying that his Royal Highness would condescend to accept it, and it arrived at the moment that dispatches announced to his Royal Highness the entrance of Lord Wellington and the British army into Madrid.

See the Marquis's letter, brought back by my servant:—

"Ragley, 5th Sept., 1812.

"Sir,

"I had the honor of receiving your letter, as also the medal of Lord Wellington, which you have destined to the Prince Regent. It arrived at a most auspicious moment—whilst we were rejoicing over the victory obtained by the British army in Madrid, and I am authorized to say, that he accepts it with satisfaction. Allow me to add from myself, that I see with real pleasure the progress which the arts have made in this county, and that I am very sensible of the compliment which

1812. you have paid me by sending one of your very beautiful medals for my own use.

"I remain very truly, Sir,
"Your most obedient,

Ing " Herrford

On the same evening, I sent one of each as a present to the Honourable Mr. and Mrs. Wellesley Pole, and I received their letter, much eulogising the medals.

"Mr. and Mrs. Wellesley Pole's compliments to Mr. Thomason, and they are extremely obliged to him for his attention in sending them the medals of Lord Wellington, which they received last night. Those in bronze are beautifully executed, and are good likenesses. The only improvement that could be made in them would be to have the date of the period at which they were cast put on one side. Mrs. W. Pole begs Mr. Thomason will inform her, where in London the medals (both large and small) can be purchased.

"Tunbridge Wells, September 7th, 1812."

On the 15th of September, Captain Boyle, of the Transport Office, wrote for some of these medals, and says he gave one to Lady Mornington.

"Transport Office, 24th Sept., 1842.

Constain Boyle has received

the two medals of Lord Wellington, sent to him by Mr. Thomason, and requests to know to whom, in London, payment for the same may be made.

"Captain Boyle gave one of the medals to Lady Mornington, who, in her note acknowledging the receipt of
the same, says—'I think the medal the most delightful
thing I ever saw, and it is an exceeding good likeness.'"

On the 12th, some of these medals were struck, and having occasion to write to Lord Lyttelton, at Hagley Park, I enclosed one in the parcel, requesting his Lordship's acceptance of it. The following is his answer:—

"Hagley Hall, Sept. 15th, 1812.

"Sir,

"Your very great and polite attention to me, in your present of the medal of Lord Wellington, has equally excited my honourable pride and gratification, in your considering that I am worthy of a testimony emanating from a distinction stupendously exalted!

"A permanent memorial of our hero must be inestimable.

"With my request to you to accept of my best thanks for your flattering regard of me,

"I am, Sir,
"Your obliged humble servant,

Syttelton.

On the 12th, also, understanding that Louis XVIIIth was at the Marquis of Stafford's, Grantham, I sent over the bronze medal of the Duke, in a splendid case, requesting that the Marquis would do me the favour to present it, in my name, to Louis XVIIIth.

1812.

Land lafford requests Mr.

Thomason to accept of his thanks for the very fine specimen of art he has done him the honour of sending to him, in the medal of Lord Wellington, which does great credit to this country.

"Louis XVIIIth has not been at Grantham (his brother was lately there, which probably occasioned the mistake in the newspapers), but Lord Stafford will take care that the medal shall be carefully conveyed to him from Mr. Thomason.

"Grantham, Nov. 25th, 1812."

In the year 1812, Mr. Thomas Attwood was unanimously elected the High Bailiff of Birmingham; when his master mind clearly conceived the fairness of having the East India trade thrown open, it being the period that the East India Company sought for a renewal of their commercial monopoly charter. He presided at a full meeting of most of the respectable merchants and manufacturers, convened by circular for that purpose, and in his address he astonished the meeting by the knowledge he possessed of the great advantages which the East India Company had reaped for such a length of years, and many of which advantages would necessarily follow in favour of the manufacturers and others of the town of Birmingham, could this monopoly be successfully opposed in the British House of Parliament. The resolutions of this meeting were communicated to Liverpool, and all the large commercial towns; when each, in common with that of Birmingham, agreed to send up a deputation, and form a general daily meeting



A TORTOISE-SHELL SNUFF-BOX,

THE WORK CUT OUT WITH A KNIFE BY A CHINESE ARTIST,

AND PRESENTED BY SIR GEORGE GREY,

MANY YEARS A RESIDENT AT THE ENGLISH FACTORY AT CANTON.

in London, that the interests of each town might be discussed. The following is a copy of the printed card of the deputies from Birmingham:—

Mr. Thomas Attwood, High Bailiff,
Mr. Joseph Shore, Chairman of the
Chamber of Commerce,
Mr. Richard Spooner,
Mr. Edward Thomason,
Mr. John Towers Lawrence,
Deputies from the Town of Birmingham,
To oppose the renewal of the East India
Commercial Monopoly.

Bedford Coffee House,
Covent Garden.

Mr. Thomas Attwood and Mr. Richard Spooner were the leaders of the speeches relative to the Birmingham deputation; and Mr. Gladstone, for the deputation from Liverpool; and they were uniformly selected by the Committee to wait upon the Minister, which proved successful in making the first great inroad upon that great and impolitic monopoly.

Mr. Attwood, a few months afterwards, was the principal in a deputation to the Minister, to break down the then ruinous Orders in Council, which the deputation accomplished; and it was clearly proved, that if his measures had been acted upon but one month earlier, it would certainly have prevented the late American war, and all the direful and disgraceful circumstances attending it; for the declaration of war from America, grounded on those Orders in Council, literally crossed the repeal of those Orders on the ocean.

1813. In 1813, I invented a convenient mode to weigh franks which lay in the small compass at one end of a usual-size silver pencil-case, which was marked with half-ounce, ounce, ounce and a half, and two ounces; a pair of salver-form tweezers were attached in the slide to a fine barrel-spring; by bringing out the points of the tweezers the letter was immediately held, and, holding the pencil-case vertically, the weight of the letter forced down the spring to the degree of weight marked on the outside. I did not obtain a patent for this, and not many hundreds were called for.

To shew, at this period, the estimation in which my establishment was held, even by my competitors, Messrs. Rundell and Bridges, see their letter to me, dated

"Ludgate Hill, 6th April, 1812.

"Sir,

"Our friend, Mr. Meyer, jun., of St. Petersburgh, having requested of us an introduction to some of the manufactories of Birmingham, we take the liberty of giving him a letter to you, and we are assured he will be much obliged by your permission to inspect your manufactories.

"We remain, Sir,
"With great respect,
"Your very obedient servants,
"RUNDELL, BRIDGES, & RUNDELL.
"E. Thomason, Esq., Birmingham."

I had, this year, rendered some service to the Royal Mint, by explaining to them my mode of hardening steel dies; and a letter from one of the officers of the Mint exhibits their appreciation of my endeavours to serve them.

"Dear Sir.

1818.

"I own my neglect in not having sooner sent you some specimens of our coins, &c. I have, however, selected some, which I shall send you soon, and I hope to show you one or two rather better than our first.

"Our new guineas I cannot say much for: such as they are, I shall send them you with great pleasure.

"With best regard to Mrs. Thomason, I remain, "Dear Sir,

"Yours truly,

James Lawron

"Royal Mint, 29th June, 1813."

As Lord Wellington received from his Sovereign additional honours, as Baron, Earl, Marquis, so did I bring out a fine new medal of him at each of these periods, the legend corresponding on the medal of Marquis. I presented, as usual, the Hon. Mr. and Mrs. Wellesley Pole with one of the first struck. See the reply, dated July 21st, 1813:—

"Mr. and Mrs. Wellesley Pole return Mr. Thomason many thanks for the medals of the Marquis of Wellington, which were worn last night at the National Fête, and were much approved."

On the 21st June, 1813, the celebrated battle of Vittoria was fought, and gained by the Marquis of Wellington, being the defeat of Joseph Buonaparte in person, the capture of all the French cannon, ammunition, and materiel, including Marshal Jourdan's baton, which trophy

1813. was taken by the 87th regiment. The news arriving in England the beginning of July, a grand dinner and fête was announced to be given in honour of the achievement at Vauxhall. Having already finished the fine medal die of the Marquis, I soon made a reverse die to commemorate the day; and as Sir C. W. Flint was the principal steward of this extraordinary fête, I presented him with a box of medals, hoping he would give them, as presents from me, to whom he approved.

See his flattering letter to me after the fête was over:-

" Irish Office, July 22, 1813.

"Sir,

"I trust that the scene of hurry and confusion in which I have been living for the last few days will plead my excuse for not having acknowledged the receipt of your letters of the 15th and 16th inst., and returned my best thanks for your attention in sending me a box of medals of Marquis Wellington, and destining one for myself. The likeness is very striking, and the manner in which the workmanship is executed is admirable. I have given a set to Mr. Wellesley Pole, and propose distributing the others among Lord Wellington's family.

"I secured an admission for Mr. Bennett, who, I hope, profited by it. The *fête* was most splendid, and fully answered the expectations of every body, particularly the dinner part of it.

"I beg you will believe me, Sir,

"Your obliged, humble servant,

MHint

"P.S. I shall contrive to get one set presented to 1813. the Prince Regent, if possible."

The following letter of J. L. Lloyd, Esq., is an introduction to me, and a flattering one:—

"Dear Sir,

"The bearer is my friend Mr. Thomason, of Birmingham, with whom, I am certain, you will be very glad to be acquainted, as a lover and diligent promoter of general science, and he will be as much gratified in this opportunity of being made known to you, and of seeing your son's wonderful model of the Steam Engine, &c., &c., &c.

"Your very sincerely,

"Birmingham, en passant, the 13th of Aug., 1813."

Having delivered several lectures, in common with other fellows of the Philosophical Institution, in Birmingham, I determined to give one upon the diamond. During some of my experiments, which I was making preparatory to the day fixed by the committee, Lord Darnley was at my works, and mentioned to me that about a week since Messrs. Rundell and Bridges had shown him a manuscript book upon the diamond. I informed Messrs. Rundell and Bridges of it, and what experiments I was, with great labour and expense, then making to accomplish my views for the exemplification to be stated in the lecture as to the size of each, and I

1813. begged the very great favour of a sight of the manuscript book for one day. See their letter in reply, dated

"London, 26th August, 1813.

"Dear Sir,

"In answer to your favour, to which we should sooner have replied had we not been in hopes to have communicated something respecting the diamonds, we are sorry to state that the book which Lord Darnley saw at our house was left with us for one day by a gentleman, who took it away at the appointed time, and we have not been able to see him since we heard from you, though, from the enquiries we have made, we are inclined to think he has presented it to the East India Company. If we should at any future time have an opportunity of seeing either him or the book, we shall have great pleasure in communicating any information we may be able to obtain. We congratulate you upon your discovery, which, though not likely to be of as great use as many other of your inventions, is, nevertheless, very interesting, particularly if, in impregnating the glass sufficiently to increase its weight, you do not destroy its transparency.

"We have the pleasure to remain, with great respect,

"Dear Sir, your much obliged

"And faithful servants,

"RUNDELL, BRIDGES, & RUNDELL."

And to show in what credit my manufactory stood in the article of buttons, see the following letter from the Commissary-in-Chief's Office:—

## "Commissary-in-Chief's Office, "London, 15th November, 1813.

1813.

"Sir.

"I have to desire that you will inform me by twelve o'clock on Thursday, the 25th instant, at what prices and in what time you will engage to furnish 6,000 gross of coat buttons, and 2,500 gross of waistcoat buttons, conformable to patterns, at the Storekeeper-General's Warehouse, Bridge Yard, Tooley Street.

"Payment for these buttons will be made by bill at ten days sight, on the articles being delivered to the Storekeeper-General, and approved of by him.

"I am, Sir,

"Your humble servant,
"In the absence of the Commissary-in-Chief,

"Mr. Thomason, Button Maker, "Birmingham."

Oct. 6, 1813, I received a letter from the Hon. Henneage Legge, of Aston Hall; but dated from his Town-house, Putney, volunteering me the loan of a bust of the Princess Charlotte, to make a fine medal of the Princess, which I cheerfully accepted, and put the dies in hand.

"Putney 6th Oct., 1813.

"Sir,

"I have got a small cast of the Princess Charlotte of Wales, and if you would like to strike a medal from it (which I should think would answer well), I will

1813. send it down by any person whose care you can depend upon, and will call for it at my lodgings, No. 13, Mount Street, Grosvenor Square.

"I am, Sir,

"Your humble servant,

Haye.

"N.B. If you have any friend coming to town soon, he might both bring Lord Wellington and carry back the Princess. I must tell you that the cast is sent me from Windsor, and the greatest care must be taken neither to dirt nor damage it."

In the latter end of June, 1813, there was much talk that the Earl of Warwick had at last permitted a model of the splendid vase, at Warwick Castle, to be modelled on the spot, provided Lord Lonsdale would have it made in silver; to this Lord Lonsdale acquiesced, and his Lordship thought he had settled with Messrs. Rundell and Bridges that the charge, including all expenses, would not exceed £30,000. Messrs. Rundell and Bridges, before completing the contract, requested to send down their principal modeller to the Castle to make a wax model of it; the difficulty and expense which they perceived they should have to encounter in the casting of so large a surface in silver led them to state to his Lordship, that the estimate must be £30,000, £5,000 more or less! Now Lord Lonsdale did not approve of the words "more or less;" and seeing that there were doubts of the possibility that this gigantic specimen of plate could ever be effected, the treaty was abandoned altogether. What charge Messrs. Rundell

and Bridges made for the great model, which was near 1814. completion, I never satisfactorily heard, but I think Messrs. Rundell and Bridges were quite consistent in requiring the latitude mentioned.

In the beginning of January, 1814, I finished the fine medal die of the Princess Charlotte, from the bust lent me by Mr. Legge, of Aston Hall. I sent three medals, the first struck, to the Marquis of Hertford, Lord Chamberlain to the Prince Regent, one of silver gilt, one of silver, and one of bronze, requesting his kind influence to present one to his Royal Highness, one to her Royal Highness the Princess Charlotte, and the other I hoped he would do me the honour to accept for himself. I received the following letter from the Marquis of Hertford, dated Jan. 13, 1814:—

"Sir,

"I received a few days ago a small parcel from you, covering three beautiful medals, which do much honour to your manufacture, and I have only to apologize for not acknowledging it before, which I was prevented doing by a rheumatic complaint, which has rendered writing very painful. I shall, with the utmost satisfaction, execute your commission, and I beg leave to thank you for the mark of distinction with which you have favoured me.

"I remain, Sir,
"Very truly,

"Your obliged and very obedient servant,

Ing " Herrford

"Ragley, Jan. 18th, 1814."

1814. This medal of the Princess Charlotte I presented to the Earl Percy, when I received from his Lordship the following letter:—

"Sion, 12th Jan., 1814.

"Sir,

"I am much obliged to you for a very fine bronze medal of the Princess Charlotte, which arrived here safe this day. It is a spirited likeness, and very well cut.

"For some time past I had intended writing to enquire whether you had produced any new inventions at your manufactory, and whether you have been permitted to erect the steam engine. I wish you would inform me whether there is any house in town that you are in the habit of communicating with, as I have been desired to get six good circular dice-boxes; nothing can answer better than that which I procured from your manufactory. Whenever the Society publish any of their lectures, I beg you will send me a copy.

"I am, Sir,

"Your obedient servant.

I had made many things for the Earl of Darlington. In January, 1814, I received the following flattering testimony:—

"Raby Castle, Jan. 22d, 1814.

"Sir.

"Having two accounts of yours before me, dated in August and September last, I beg to remit you the amount of the two, except twelve shillings, which I must continue in your debt until I have some opportunity of 1814. remitting it to you, or until you receive a further order from, Sir,

"Your obedient, &c.,

"The articles you sent me have been greatly admired."

A letter from Sir William Congreve, dated April 23d. It was respecting my being represented to the Russian Government as a fit person to hold the Russian consulship in Birmingham.

## "Dear Sir,

"I had it in contemplation to write you a line, to request you would give me a call to-morrow morning, in Cecil-street, about nine. I have seen Count Lieven to-day, and am yours truly,

Manfengr

"23d April."

Colonel Murray called upon me on March 17th, 1814. He had lost his hand or arm in the war, and had just seen an invention for a substitute of a knife and fork for a single-handed person.

1814.

In When Murray recollects

that when he had last the pleasure of seeing Mr. Thomason in Birmingham, in conversation Mr. T. mentioned he had not seen a knife which Lieut.-Col. M. described for the use of one-handed people. Lieut.-Col. M., therefore, takes the liberty of sending one that he has for the inspection of Mr. Thomason, and he requests he will try it with his left hand. It is the best invention of the kind. Should Mr. Thomason wish for a pattern, he can keep the knife till nine o'clock to-morrow morning, but Lieut.-Col. M. regrets he cannot leave it longer, as he has only two with him, and he cannot do without them.

"The original of these knives was sold by Palmer, in St. James's Street, but Lieut.-Col. M. believes there is no patent.

"Dog Inn, Birmingham, "Thursday evening, 17th March, 1814."

In May, 1814, I obtained a passport, through a friend in the Foreign Office, to take me to Paris. Louis the Eighteenth had sailed only a few days. I took with me Mrs. Thomason and my son (quite a child), and so rapid were we, that the triumphal arches in every town had not been taken down. Arriving at Paris on the the Saturday, we went to the Halle des Marechaux, to see the King pass on his way to the Royal Chapel. It happened to have been the case that Louis the Eighteenth, Count d'Artois, and many of the royal family, visited Birmingham a few months before, to inspect some of the manufactories. I attended them

Shield of Faith \_ Shield of Wellington. Windmill with one Sail \_ Ship to Row-herself against Wind & Lide... Carriage Saps.... Cun Look for Safig...... Corksam...... Hearth Brush Frank Weghow Machine Elder 9 Thomas Lectury Roots.
Sand Loans, Clay Gr.
Lindh, Lindon Bosin.
Strate, and Line Gr.
Wite Sand Fire Gr.
Gravel Buck Loth.
Vecely: Acute. Watch Case. Rain's Es Ouants Z Sword Cane — Geometrical Itule & Compasses — Mechanical Aphabet — Concealed Imbrella — Invalid Door Catch to Romains of Plants or Anma Finty States, States of Sticia 6 rwake. Lar. State. Silver rapp massive of Basal From thre Rocks Fundes Limestone contains Amyodoloids Transition Rooks mestone massive of Clay, contrains Shells. Owner Lead. Zinc. rim Flush State Thorry Prim' Cypsum Od - Chrandy. 53. Quartz Rock Pum Trapp Thit Stone Lea State Tay State Pras Rock ernentin (marite Grouss Sumule The Author's Bible Medals Secondary Rocks
Cld Red Sand Stone
1st Flatz Livrestone
1st Flatz Gynsum
Variegated Sand Stone
2st Flatz Gynsum
2nd Timestone Plants & And Sund Stone Mary In S Sund Stone
Rick Salt it maken
Chalk fort
Flow Traps fort
Inde Coal fort Inventions of Su Edward Thomason Newest Flasts Traph Voi. hell Limestone Medals on Science man g withe Watch Case 3 nowhum ·al or Birmingham us Engraved. holds ligh of look of Air Shield Sliding Fork \_\_ Silver Edge Com \_ ross 191 Force on 11 feet 6F. 21 88718 98 07 35 001.800 8961 867 JET600006 006'000 OF or 2200.95 7410:1 5200.37 7700 68 45 Hiles an hour equalto Quire . 01 Storm વ 571 ç ferox L 77 ||0059 ||**005**9|| AND Less Mater านของ 1700 Mater ď 5270 6/18 weights this of į 436 17 opper Ore Vanganese Oil Jurp! Lead Ore Diamond 1800. Glass F Sulphur Speller Alcohol Corner Brass Amber Thony ead rolly. Guard Table Fork Light 200 000 Rer second. · 0001 Greatest heat of Smith's Forge 17.829 Wheel & Aris. 4 E Water 1000.



over mine and others, and my little boy was permitted 1814. to accompany the King, who, in a very friendly manner, frequently took him by the hand, and noticed him. The consequence was, that his Majesty recognised us in the Halle des Marechaux in the most affable manner, and desired the Marshal on duty to conduct us to seats in the Royal Chapel.

Many little attentions were paid to us during our month's stay at Paris. Amongst the rest, Baron Denon waited upon us, and conducted us over his exhibition of extraordinary antique curiosities, also the Louvre, Marshal Soult's pictures, &c. I expected that I should have seen in the Louvre some very large metallic bronze vases, somewhat in accordance with the one at Warwick Castle, of which I had much conversation with the Baron. I expressed my surprise not to see one large. sized real bronzed vase in the exhibition. served that it was a singular fact that in all his travels in Egypt, Greece, Italy, &c., he knew not of one of any magnitude; and remarked, that had the Emperor Buonaparte been successful in conquering England, which many of the French generals presumed upon, the first note entered in his pocket-book was to possess himself of the marble vase at Warwick Castle!

I observed, "Since that is not the case, and you doubt if a fac-simile could be made in bronze of the Warwick vase, I will, on my return, solicit Lord Warwick to permit my artists to make a wax model of it."

I inspected most of the manufactories at Paris, and I was pleased to find the little progress they had made in the metallic art. I was surprised, however, at their secret of superior gilding of the time-pieces. I was admitted into one gilding establishment, and I found

1814. the medium was similar to ours, mercury; nevertheless, the French did gild the large ornaments and figures of the chimney-piece clocks with one-half the gold we could at Birmingham, and produced a more even and finer colour. They would only let me witness the operation, but would not be tempted, by any moderate premium, to sell their chemical secret of colouring.

On my return through London, I waited upon Mr. Huskisson, and related all that I had seen. I regretted that we could not have a treaty of commerce upon the same basis as the last (Mr. Eden's); if such could have been accomplished, I was convinced that in three years we should destroy their hopes of manufacturing. Mr. Huskisson was for the over liberal system, assuring me that the French could never in any manner compete with us, and, therefore, Lord Castlereagh had not pressed it. Indeed, I had the mortification to hear at Paris, that, at a diplomatic dinner of the Ministers of the different countries, on the question being mooted, and the point being proposed by the French Minister of a treaty of reciprocity, lowering the duties on French wines, brandy, &c., Lord Castlereagh should reply, that there were matters of much more importance to be discussed prior to the secondary considerations of commerce!

I returned home highly gratified with the sight and purchase of the Buonaparte medals, so superior in classical taste and execution to those in England; and I made up my mind that every degree of liberal feeling should actuate me, whatever might be the expense, in the improvement of my artists in the medal department of my manufactory, for I was mortified to see that great disparity of excellence and good taste in the numismatic art between the two countries.

In June of this year, there was a great fête given by 1814. Mr. S. Fereday, and his co-partners, to their numerous workpeople, being about five thousand, the greatest number that was supposed to have ever been employed by any one firm; and I made for Mr. Fereday five thousand medals, one of which he presented to each workman. The fête was given at Mr. Fereday's, Ettingshall Park, near Bilston.

I was given to understand that the Emperor of Russia would pay a visit to England, prior to his return to his dominions. I obtained a fine likeness of him, and my best die engraver, Webb, was able to accomplish in time, before the Emperor arrived in England, a fine medal of the Emperor. The legend round the head, on the obverse,

ALEXANDER IMP. ROSSICI AVTOCRATOR. On the reverse, within a beautiful wreath,

ORBIS TE LAVDAT. PECATVS. MDCCCXIV

It occurred, however, that Her Imperial Highness the Grand Duchess of Oldenburgh, and sister to the Emperor, arrived in this country a few days before the Emperor, and almost immediately came, with her suite, to Birmingham, to visit the different establishments. She was a lover of works of art, endowed with a most refined and cultivated taste, and possessed much science, even to chemical analysis. I had the honour to conduct Her Imperial Highness through my manufactory. She was an extraordinary observer of every machine, and absolutely anticipated the results. She even requested to work or move some of the machines with her own hands, and seemed delighted with the proceeding. I confess that I never attended a lady over my manufactory with so much gratification. It took about four

1814. hours to pass through the works; but towards the conclusion, when we arrived at the room called the medal die-sinking shop, my artist was just finishing off the die of the Emperor, with which she was much enchanted, and understanding from me that the first medal would be struck from it on the following day, ready for me to have the honour of presenting to the Emperor in person on his arrival in London, Her Imperial Highness induced me to forego my intention, and permit her to have the gratification, which she did, as the Emperor was ascending the principal staircase at the Pulteney Hotel.

On the 4th of June came the following letter to me from Her Imperial Highness's Secretary, G. Busshman, by command:—

"Sir,

"I have the commands of Her Imperial Highness the Grand Duchess of Russia, Princess of Oldenburgh, to acknowledge your letter and the box with medals sent by you. Her Imperial Highness has been much pleased with this highly finished specimen of your art, and will present the golden medal to the Emperor, her august brother, according to your desire. She has ordered me to return you her most sincere thanks, in doing which

"I have the honour to be, Sir,

"Your most obedient humble servant.

G Bufshman

"Secretary to Her Imperial Highness.

"Pulteney Hotel, London,

"3d of June, 1814."

On the day that the gold medal was struck off, I also

had one struck in bronze, which I presented to Earl 1814. Percy, and also the Duke of Gordon.

"Northumberland House, 6th June, 1814. "Sir,

"On my return to this place from Paris, I received the parcel containing the things from your manufactory, as well as a beautiful medal of the Emperor of Russia. In addition to its being remarkably well struck, the likeness is one of the best I have seen.

"To-morrow I understand that the Emperor of Russia and the King of Prussia will arrive in town; Blucher and Platow, who are on their way, will probably accompany them. If you should strike off any medals with Platow's likeness, I shall want a dozen, set in glass cases, to wear at the button hole, for the Cossacks who have already arrived with the Ataman's horses.

"The prints of Platow being all of them unlike, I should advise that no medal be made until there appears a good likeness of him. If you have any artist in London whom you employ, I think I can put him in the way of taking a likeness of Blucher and Platow.

"I should like to have six more of the dice-boxes sent as soon as possible.

"As the post is going out, I have only time to seal my letter.

"Your obedient servant,

Percy

"When I hear that the great personages are likely to visit Birmingham, I will send you the earliest information." 1814. The Bake of Good on has received

the medal Mr. Thomason has been so obliging to send him, and returns him many thanks. It appears to be a most excellent piece of workmanship indeed, and does him infinite credit.

The Duke wishes to know if any have been struck off for sale.

23, New Norfolk Street, June 7th, 1814.

In a few days many of the suite of the Emperor and the King of Prussia came down to inspect my manufactory, and others.

The Princess Lucien Buonaparte, knowing that I had just returned from Paris, directed her Secretary, the Abbé Charpenter, to address the following letter to me:—

"June 20th, 1814.

"Sir,

"The Princess Lucien Buonaparte will be tomorrow night in Birmingham. She will sleep at the same inn where her Excellency was the last time she was there. She will be very glad to see you, having several commands to intrust you with. I am afraid she will not have time to see your manufactories.

"I have the honour to be, "Dear Sir,

"Your humble servant,

L'Ab, shapenter

"Hanckley, Sunday night."

As it was said that the Emperor of Austria and the 1814. King of Prussia were arrived, with the Hetman Platoff and Marshal Blucher, (the Emperor of Austria did not come) a thought struck me that there was no medal made that came, in price, within the compass and means for the artisans to partake of the general rejoicing. My die engraver could not, in the few days required, cut or engrave a medal die in alto relievo, but he could manage one in bas relievo. I had, on the obverse, the four profile heads of the Prince Regent, the Emperor of Russia, the Emperor of Austria, and the King of Prussia. The likenesses were excellent, and the die cut most exquisitely, the relief being only the height of our crown pieces. The legend was, "We shall never see their like again;" and on the reverse the emblem of peace. Silver medals were presented to the Royal visitors, and white medals to the different charity schools around. The medal seemed to please more than any of the expensive ones, and the die was literally worn out in striking for the demand. A general illumination was agreed upon at a public meeting convened, and all was joy, happiness, and congratulations. Almost every principal house and establishment had a transparency, every draughtsman having been put in requisition, and all the glass manufacturers to produce coloured lamps.

The Birmingham paper of Monday, 13th June, 1814, was almost filled with the explanation of the allegorical subjects. The peaceable and orderly populace was the constant theme of conversation. The mention of my residence in the paper is as follows:—

"At Mr. Thomason's, in Colmore Row, the four first story windows were filled with allegorical transparencies.

- 1814. "The first contained two swords, broken, and underneath them a plough-share.
  - "The second, the earth represented by a globe, and a dove with an olive branch descending upon it.
  - "The third, a seaport, with vessels coming into the harbour, and busy scene of commerce on the quay.
  - "The fourth, a figure of Plenty, holding in her right hand a cornucopia, and in her left hand ears of corn.
  - "The whole was surmounted by a large and beautiful transparency of 22 feet in length, representing Britannia in the attitude of adoration to Providence, arched over with the following inscription:—'Not unto us, O God! but unto Thee, be the Glory.'"

When Her Imperial Highness the Grand Duchess of Russia and Oldenburgh was at Birmingham, she enquired of me if there was a Russian Consul appointed for the town? I informed Her Imperial Highness that there was not, and I should be much obliged and gratified to be honoured with the appointment. She promised me to speak to the Emperor. I afterwards made many enquiries of the Chevalier Dubatchefsky, the then Russian Consul-General, respecting Her Imperial Highness's promised communication. I was well convinced and informed, that the recommendations to this appointment must emanate from the most respectable source, and Earl Percy, the Hon. Cecil Jenkinson, M. P., Mr. G. Lambton, M. P., and many others in high situations, did me the favour to wait upon the Chevalier Dubatchefsky, who explained the difficulties and exertions always essential to obtain any such favour, as the following letters will shew: -

"London, 3d May, 1815.

1815.

"My dear Sir,

"I had the pleasure to receive your favour of the 29th ult., and lost no time in calling on my friend, Le Chevalier Dubatchefsky, to speak to him upon the subject. This gentleman did not seem to have received as yet any intimation of the intention of the Russian Government you allude to, and though he has the authority to appoint the Vice Consuls, yet he thinks that to be confined to the seaport towns. He imagines that the Duchess of Oldenburgh might have originated this business; but if any instructions about it have been sent to the Russian Ambassador, he may have forgot to communicate them to the Consul General. Mr. D. promised that he would sound the Ambassador whether he had been written to about this subject, and that if such a measure should really be ordered by the Court, you would have all his interest as well in this as any other matter of business. Mr. D. will write to you himself upon the subject. Meantime I am much gratified by your thinking of me on this occasion, and hope you will always command me whenever you think I can make you any return for your repeated polite attentions. I beg my best respects to Mrs. Thomason and your son, and remain.

" Dear Sir,

"Your most obedient servant,

Algiese

1815. "London, 45, Gt. Coram Street, Russell Square, the 5th May, 1815.

"Sir.

"In acknowledging the honour of your letter of the 2d inst., on behalf of Mr. Edward Thomason, I beg leave to tell in answer, that my august Sovereign's thoughts of establishing a Vice-Consul at Birmingham are not known to me, and I rather presume that nobody is, nor cannot be designated for that situation, the said town being no seaport; otherwise, your respectable testimony alone of Mr. Thomason's full and complete competency for the imagined situation would be considered by me as quite sufficient; but flattered as I am with, I dare not give you my word for contributing in any way towards taking effect of your recommended friend's solicitation.

"I have the honour to be, "Sir,

"Your most obedient humble servant,

AdeAubatche

"To the Hon. Cecil Jenkinson, M. P."

" Dear Sir.

"I was duly favoured with yours of the 29th. I have this day seen the Russian Consul-General, who is perfectly satisfied with the references made, and desired me to say, that he was just now too much engaged to write to you, but that he should in a day or two; and, in the meantime, you might consider the matter as settled, and beg you will accept my congratulations on the the respectable appointment.

"If you are inclined to send an adventure out to 1815. Bombay, we shall have a ship, the Lord Castlereagh, going out about the latter end of this month.

"I remain,

"Dear Sir,

"Your very obedient servant,

I howered

"London, 5th May, 1815."

I had manufactured this year a large quantity of tokens for Admiral Sir Isaac Coffin, Bart., who is the sole possessor and king, as he called himself, of the Magdalen islands, situated in the Gulf of St. Lawrence, in North America. They were principally of copper, pence and half-pence. The obverse was a seal, and the legend round the edge, "Magdalen Island Token, 1815." The reverse, a split cod fish; the legend, "Success to the Fishery. One Penny."

As soon as a large quantity of these were struck off, Sir Isaac sailed off with them, packed up in casks, and took with him a powerful coining press and machinery, and dies ready engraved, to establish what he called a little mint for his subjects, to manufacture their coin for the future, on receiving the rolled copper from England, and so disposing of the scrap part to the Americans. All this I arranged for him, agreeably to his wishes.

On Sir Isaac's return to England, he informed me that the inhabitants paid him every attention and courtesy, and were much delighted with the new coin, which Sir Isaac advanced by way of loans to some of the superiors, 1815. at a fair interest, and for the expense that he had been at for their well-doing. They allowed him to institute a kind of poll tax, a trifle for each to pay annually to the Committee of Management; but no sooner had he left the island, but they broke faith, and, at the water's edge, shouted out "Fouettez King George, and King Coffin!" I have reason to believe that the Admiral never again went to visit his subjects.

Sir Isaac Coffin was a great favourite with George IV. He descended from the family of Tristam Coffin, who settled in America, at Boston. He had a large two-inch medal engraved to commemorate this event. It represents, on the obverse, Tristram, in full length, standing on a plinth, lettered 1642. He wears his hat, a large double Elizabethan frill, cloak open, and trowsers tied with large bows at the knees; also large shoe bows. The legend:—"Tristram Coffin, the first of the race that settled in America." The reverse, four hands united. Legend:—"Do honour to his name. Be united." He presented the author with a silver-gilt medal.

I had made a medal of both Blucher and Platoff, two of which, in silver, I sent as presents to the Marquis of Hertford, as I had occasion to write to him, to know if the two Prussian Princes, sons of the King of Prussia, were likely to extend their journey to Birmingham. I received the following reply:—

"Sir,

<sup>&</sup>quot;I beg to return you many thanks for two beautiful medals which you have been so obliging as to send me.

<sup>&</sup>quot;The foreign princes, sons of the King of Prussia,

return this evening from Oxford, and stay in town 1815. until Tuesday, when they set out to embark at Portsmouth. I therefore foresee no probability of their visiting Birmingham.

"I remain, sir, "Your most obedient servant,

Ing " Hentord

"London, 16th June, 1815."

At the ever memorable battle of Waterloo, the Marquis of Anglesey had the misfortune to loose a leg, and he lay at Surbiton, where it was amputated. This accident created the most profound regret to all loyal Englishmen. It appeared to me that I might render him some assistance when he was enabled to leave his bed. I made a pair of crutches, with sliding silver tubes, and self-acting springs; when the three tubes were drawn out at full length, and which was done with the greatest degree of ease, the crutch was instantly adapted to a person five feet eleven inches in height, the height of the Marquis, and by placing the thumb and finger upon the springs, the crutch receded and shortened to two feet eight inches, the proper height to be used as a walking-cane. The cross-bar was covered with crimson velvet, and I sent them off as a present to the Marquis, on the 12th of July, to Surbiton, in the Netherlands. I received from the Marquis the following letter :-

"Surbiton, 21st July, 1815.

"Sir,

"I beg to express my warm acknowledgements for your obliging and kind letter. The crutches are not 1815. yet arrived; but when they do come, I shall use them with a grateful recollection of the feeling manner in which you have offered them to my acceptance.

"I am, Sir,

"Your most obedient and obliged servant,

professy

"To Edward Thomason, Esq."

It appeared to me that a variety of plans would be used to perpetuate and transmit to posterity the glory of British valour, and I suggested a bronze column, two feet in height, as a drawing-room ornament, a tube to draw out of the column, and filled with medals that should contain the name of every officer engaged in the battle. I addressed the following letter to his Grace the Duke of Wellington:—

## "Birmingham, 1st August, 1815.

## "My Lord Duke,

"Among the variety of plans which have been, and may be, suggested to perpetuate and transmit to posterity the glory of those whose valour and virtue assisted in that ever-memorable battle of the 18th June, it appears to me a medallic history would be very acceptable, the size of which should be sufficiently extensive to embrace the name, rank, and regiment, of every officer who was actually under your Grace's command in the battle of Waterloo. It probably might consist of from fifty to one hundred medals. Of this I can be no judge; but, whatever may be the number required, I will not shrink from the labour requisite to complete the series,

provided I can only be furnished with the name, rank, 1815. and regiment of every officer. I then humbly solicit your Grace's assistance, so far as to order them to be provided to me, and I do pledge my honour to your Grace, that, although the work may be so laborious, it shall be done in less than six months from the day that I may receive a list of the names of the officers, &c., for I have more strength within my manufactory to accomplish this than any other individual, and my pride and wishes keep pace with it.

"I beg to assure your Grace that I contemplate no emolument, I ask for no patronage, although the dies may cost me £2000. I shall be completely repaid in having the opportunity of giving my humble aid to the catalogue of publications to commemorate so glorious an epoch.

"I have the honour to remain,
"My Lord Duke,
"Your Grace's very devoted,
"And obedient servant,
"EDWARD THOMASON.

"To Field Marshal the Duke of Wellington."

I have not found the Duke's reply to me, but it was very courteous. The proposal was abandoned from the difficulty of steering clear of mistakes in names and numbers, thereby giving umbrage to some one.

In November, 1815, his Majesty's Mint at the Tower was nearly destroyed by fire. I offered my services in anything which could be made available at my manufactory as a temporary matter, when I received the following letter:—

1815

"Mint Office, 11th November, 1815.

"Dear Sir,

"Mr. Wellesley Pole, the Master of the Mint, has acquainted me with the offer you kindly made to him of rendering any assistance in your power for carrying on the public service in the coinage of the moneys, under the loss and damage the Mint has sustained in its machinery by the late fire, and I am directed by him to acknowledge his obligation to you for your ready attention; but as he has caused immediate steps to be taken for resuming the coinage in a temporary manner in a very short period, it will not be necessary for him to avail himself of your services.

Mr. Lawson begs that I will mention to you that he will apprize you as soon as the medals are ready for bronzing, and he hopes you will put him in the way of using the light-coloured bronze, which Mr. Pole wishes to be applied to the medal.

"I hope you will pay me a visit when you come to town; I shall be always happy to see you and Mrs. Thomason. Pray present my best respects to her, and believe to remain,

"Dear Sir,
"Very truly yours,

Jack Morrison

Mr. J. C. Loudon, the author of many works, having made up his mind to visit Russia, to look into the architectural buildings at Moscow and at St. Petersburg, and their landscape gardening, I gave him several letters to some friends of mine there. On his return he wrote me 1815. the following letter:—

"London, 28th Nov., 1815.

"Dear Sir,

"I have the pleasure to send you a specimen of malachite, which, however, is far from being such as I expected to have sent you when I proposed doing so, when last in Birmingham. The fact is, that out of the 1½lb. I left at Moscow to be cut (or rather broke) and polished, I only received the rubbish sent you, together with three or four stones which I am getting set for my sisters. These fragments show the brittle nature of the stone, and may be polished in small pieces, like peas or turquoises.

"I have also sent l'ambusoude de Pologne, which I think I promised to send you; and I have added two or three prints of French dresses, to which I would beg the attention of Mrs. Thomason, as I mean them in justification of the sentiments I expressed as favourable to the French dresses as they were in August last, when I was in France. You will think it odd that I should send these prints; but, in truth, I am not willing that Mrs. Thomason should have had a bad opinion of my taste on this or on any other subject.

I am sorry that, after promising specimens of malachite, I should be under the necessity of sending such indifferent pieces. I had flattered myself the mass would have turned out more advantageously. You will, however, I trust, accept of them such as they are, and do me the credit of having been desirous to send you the best I possibly could.

1815. "I beg my compliments to Mrs. Thomason and your son, and

"I remain,

" Dear Sir,

"Your most obedient servant,

"E. Thomason, Esq."

In December I received from the Austrian Ambassador a letter to recommend to my best attention the Baron de Pellendorff and the Baron de Knoro; and, on their leaving Birmingham, they sent me the following flattering letter:—

Saron Je Monsieur Edward Thomason leurs vive reconnoisance pour toutes les complaisances et politesses dont il a voulu leurs rendre le sejour de Birmingham agréable et instructive. Ils garderont toujours un douce souvenir de l'accueil prevenant et obligeant qu'ils ont trouvé de la part de Monsieur Thomason. Ils s'empresseront à leurs arrivée à Londres d'informer leurs Altesses Imperiales les Archiducs d'Autriche, du desir de Monsieur Thomason d'etre averti du jour de l'arrivée de leurs Altesses Imperiales, et de sa proposition complaisante de contribuer à leurs rendre le sejour dans cette ville agréable et interessant.

"Ils saisissent cette occasion pour exprimer à Mons. Thomason leurs consideration particulière.

"Birmingham, le 1r Decembre, 1815."

Having finished the fine die of the Princess Charlotte, 1816. struck off on her Royal Highness's birth-day, I presented one to the Queen, and received the following letter from Sir Herbert Taylor:—

" Brighton, Jan. 12, 1816.

Hay love

"Sir.

"Sir Benjamin Bloomfield having desired me to present to the Queen the medal of the Princess Charlotte, which you struck off on the occasion of her Royal Highness's birth-day, I have been honoured with her Majesty's commands to return you her thanks for your attention, and to assure you that both the design and the execution of the medal have received her entire approbation.

" I have the honour to be,

"Sir.

"Your most obedient, humble servant,

" Edward Thomason, Esq."

About this period I delivered a lecture at the Philosophical Society, in which I exhibited a specimen of the result of the fusing of basalt, and the peculiar disposition of the stone to solidity again; and knowing that Lord Valentia was possessed of several fine specimens of lava from Mount Etna, I presented him with a specimen of what I had fused and solidified. His Lordship, in reply, sent me the following letter:-

1816. "Arley Hall, near Bewdley, Feb. 7th, 1816.

"I felt very much obliged by your specimen of the fused trap, and the columnar glass, and should be glad to know the composition of the last. I am a very bad mineralogist, and a worse chemist, but I could not but be struck with the resemblance between the specimen you sent me and several of the lavas, the produce of Mount Etna. I am sorry to say I have not a specimen of the basaltic columns of Taci Reale, but I have sent herewith some varieties of the produce of Etna, which I think may be interesting to you. My own specimens are not large, so that I was obliged to be cautious in dividing them.

"I mentioned to you, on a former visit to Birmingham, that I had several varieties of Sicilian agate, &c., which I found it impossible to get cut in England, and you seemed to entertain a hope that you could do it. I therefore send a few specimens at the bottom of the box, and if you can polish them, I have many more.

"I also send some specimens of the volcanic glass of Lipari, and, what is much more rare, the true opsidium from the Red Sea, which was unknown in modern Europe till I brought it home in 1806. The latter is perfectly opaque, the former semi-transparent on the edges. I think you will like to compare them.

"The other specimens, in paper, of manganese in calcedony are, I believe, not procurable in England. They take a most beautiful polish.

"I should recommend to you, if you have not already read them, the Travels of Spalanzani, who, after collecting all the varieties of lava, submitted them to the operation of fire, and has given the results. "Should anything lead you into this country, I shall 1816. be most happy in showing you my collection, and offering you any specimens which I can spare.

"I have the honour to be,
"Yours very faithfully,

Valenta

Being informed that the artist, P. Turnerelli, had just finished a marble bust of the Prince of Saxe Coburg, I wrote to him to know if he would sell me a cast, that I might make a medal of the Prince. The following was his reply:—

"67, Newman Street, London, April 13th, 1816.

"Sir,

"In reply to yours of the 11th instant, I must inform you that, as I have been exclusively favoured with sittings for a bust of the Prince of Saxe Coburg, and having been at a great expense in taking it at Brighton, you cannot be averse to making me an allowance for the privilege of taking a medal from it. Under such circumstances I will propose either of the following conditions. That you take a marble bust at 130 guineas; 2d, that you order twelve casts in plaster, at 5 guineas each; 3d, that if neither of the above are approved of, the sum of 25 guineas may be allowed for the use of the bust to take a medal. On complying with any of the above conditions, you may order a person, without loss of time, to either model or make a drawing from it. I have mentioned terms, both for the marble bust and casts, considerably under the usual charge I make to

1816. persons out of business, as my regular charge for busts of that description in marble is 150 guineas each, and for casts 8 guineas each. I have orders for nearly 50 busts of Wellington and Blucher, in marble, at 150 guineas each. Should you agree to take the casts, you may have that number made up of Wellington, Blucher, and the Prince, without taking all of the same kind, and I think, on the terms I have mentioned, you may dispose of them with ease, by exhibiting them in your show room. The bust of the Prince of Saxe Coburg is modelled as a General in the Russian uniform, and decorated with several of the principal orders he has had presented to him.

" I am, Sir,

"Your obedient servant.

P. Turnerelle

" Edward Thomason, Esq."

Considering Turnerelli's demand exorbitant, I wrote to my esteemed friend, the Hon. Mr. Legge, who frequently visited Windsor. He sent me the following letter in reply:—

"Putney, 15th April, 1816.

"Sir,

"I can assure you I have neither forgot nor been inattentive to your commission, but have reason to believe that no profile has yet been taken of Prince Leopold. I gave your letter, received on Saturday, to the friend whom I had before employed upon the same embassy, and who goes to Windsor on Wednesday, where the said Prince will go the next day; and if any likeness has been, or is immediately likely to be taken, you may 1816. depend upon it a copy shall be procured for you as soon as possible. I strongly suspect that the fear of the treaty being broken off (as on a former occasion) has been the reason of no picture being yet published.

"Believe me, Sir,

"Your obedient humble servant,

Hayge.

" Mr. Thomason."

In June, I was requested to pay particular attention to the Prussian' Baron Von Appel, and Dr. Spiker, librarian to His Majesty the King of Prussia. Dr. Spiker published his Travels in England, which were translated, and published by Lackington, from which I copy the Doctor's remarks respecting my establishment:—

"We next day paid a visit to Mr. Thomason's manufactory, the Prussian Vice Consul, who has a very extensive manufactory. This enterprising man, who, to his extensive knowledge and inventive genius, unites the greatest attention and politeness towards strangers, executes in his house, and under his own inspection, the greater part of the articles which are known among us on the Continent by the name of Birmingham ware. In one of his show-rooms the small kind of mechanical articles are exposed to view in handsome glass cases; in another, plated and solid silver utensils are arranged in presses; in another, which is lighted from above, are vases, statues, and all the larger kinds of metal articles.

1816. We were surprised with the sight of a great number of new inventions, combining simplicity with utility, and calculated to add to the comforts of life. Mr. Thomason has obtained patents for six or eight of The medals struck by Mr. Thomason his inventions. are likewise worthy of notice, such as the series of Kings, Blucher, Wellington, and other renowned generals, officers of state, and literary men. Among the larger, the imitation of Chinese porcelain on japanned tin, and the large gilt statues of cast iron. The attempt to imitate the Warwick vase is truly a gigantic undertaking. The body is already cast, and part of the gilt ornaments are also finished. In the workshops we saw several machines of peculiar invention, adapted by Mr. Thomason's contrivance for making parts of his future inventions more speedily than could be effected by manual labour, whereby great savings both of time and labour are effected.

"Mr. Thomason had the goodness to recommend us to several of the most considerable manufactories, and sent one of his own clerks with us."

About a fortnight since, ready for the celebration of the birth-day of the late Mr. Pitt, 28th May, I finished a very fine medal of Mr. Pitt, with a beautiful historical device.

This medal having been issued to the Committee of the Pitt Club, it came, of course, under the cognizance of Mr. Sainthill, a gentleman well known as possessing much science and classical taste, also being a professed antiquarian. He wrote me, on the 11th of June, a letter upon its allegory and inscription. "70, High Street, Southwark, London, 1816 "June 11th, 1816.

"Sir,

"It having been mentioned some time since, by Mr. Young, that you would probably publish a medal of Mr. Pitt, many (I believe) besides myself, who hold his memory dear, as an able and patriotic minister, have looked for its appearance with considerable interest and expectation, which, in some points, have been much disappointed by the one which has come out, and which I think will find but few purchasers. I shall keep mine, as I am much pleased with the bust, which appears to be a correct resemblance, by Nollekins, and is, in my opinion, of superior workmanship.

"Unfortunately, the reverse has faults sufficient to condemn any medal. On the first view, we are offended by an inscription in Latin, when the inscription on the obverse is English. All classical authors lay it down as a rule absolute, that the inscription on both sides of a medal should be in the same language, and in this the highest authorities of this day (Mr. Miles, Mr. Coombe, &c.) I know are also agreed, and on this medal the reverse inscription is a continuation of the obverse. It is, therefore, as improper as if the inscription on his monument in Westminster Abbey was part English and part Latin.

"But more serious than even this. You state the date of Mr. Pitt's birth as being the 8th May, whereas it was the 28th. A medal is an historical record, and here the record is erroneous, and the main purport of it worse than useless, as it will mislead those who trust to it.

"I have, then, to complain of the language of the inscription. Factus Cancellarius, &c., is an expression excusable

1816. in a mechanic or a school-boy when speaking, but, as I conceive, highly improper in writing, and more particularly so in an inscription. *Made* Chancellor, &c. Hobnails may be *made* into a gun-barrel, and a bar of steel into penknives, but an officer of state is *appointed* to fulfil certain duties. While Mr. Pitt fulfilled those duties in the Court of Chancery, he was the Chancellor, but when the King was pleased to dispense with his services, he again became a simple individual, which, if he had been *made* a Chancellor, of course, would not have been the case; and, I believe, that, according to the genius of the Latin language, the word (whether made or appointed) should be omitted altogether—it is understood.

"I may also notice, that many of the letters on the reverse look rather like those on a cast than a struck medal.

"I make no apology for these observations, for if I did not feel an interest in your medal, I should not trouble myself to offer them to you. A good medal of Mr. Pitt, I believe, will sell very well; but I recommend an English reverse; and, instead of merely recording his youth when he became minister, to pay a tribute to the characteristics of his administration.

"I remain, Sir,

"Your very obedient servant,

Rolainthill L.
Born the 28th May, 1759.

Who, during an eventful period

Of 20 years,

Guided the Councils of Great Britain

1816.

With unexampled wisdom and fortitude:

And laid the plan of that system of action,

Which has raised her to her present eminence and glory.

Who, though the dispenser

Of all her honours, dignities, and emoluments,

Neither sought nor assumed any to himself,

But died, undignified by titles,

And without the acquisition of that wealth,

Which is so much the object of all human wishes,

"The above I began as a reverse for your medal, and a classical friend has added to it. If you think it, or any part of it, useful, it is much at your service.

23d January, 1806.

"June 11, 1816."

I succumbed to his superior attainments, altered the reverse die in conformity with his opinion, and presented him with the new medal. See his second letter:—

"70, High Street, Southwark, 26th July, 1816.

"Sir,

"I have to return you many thanks for your very obliging letter of the 24th ult., and the present of your medal of Mr. Pitt. I feel extremely gratified by the honour you have conferred on the inscription which I took the liberty of sending you, and I flatter myself the medal will have an extensive circulation.

"With respect to my expression, 'that Mr. Pitt be-'came a simple individual in society when he was removed 'from his official situation,' I meant—legally and constitutionally—when the Sovereign called him to office, he 1816. was only a commoner of the realm. As on officer of the Crown, he exercised certain powers; which powers vesting in the office, and not in the man, when he quitted office, he was again placed in the same situation which he occupied previous to being Minister. This was my view, and which I alluded to as bearing against the word made; in no other respect could Mr. Pitt be considered as a simple individual. In office or out, he was still the same Pitt to whom we looked up for safety, and, as Walter Scott truly said,

'Hadst thou but lived, though stripped of power,
A watchman on the lonely tower,
Thy thrilling trump had roused the land,
When fraud or danger were at hand;
By thee, as by the beacon light,
Our pilots had kept course aright;
As some proud column, though alone,
Thy strength had propp'd the tottering throne.
Now is the stately column broke,
The beacon light is quenched in smoke,
The trumpet's silver sound is still,
The warder silent on the hill!'

"With every good wish, believe me to remain, "Sir,

"Your very obedient servant,

Robainthill B

" Edward Thomason, Esq."

In the month of July I obtained permission from the

Earl of Warwick to allow my modelling artists to have ingress and egress to the Conservatory in the Castle Gardens to model in wax a real size fac-simile of his lordship's celebrated Warwick vase, as the Earl of Lonsdale had been induced, in consequence of the difficulties set forth by Messrs. Rundell and Bridges, and the great expense to perfect one in silver in every point a fac-simile, and which was 21 feet in circumference, to abandon his intention. I was well aware that the condition on which the Earl permitted his vase to be modelled was, that it should be cast in silver. I assured his lordship that he must be convinced that it would not suit the pocket of such an humble individual as myself to make one in silver; and, again, I felt confident that his lordship would agree with me that a fac-simile made in bronze would be in better taste than if made in silver. His lordship acquiesced in my opinion, but still thought the attempt of too gigantic and of too expensive a nature to be achieved by any one individual merely to gratify his own taste and feelings; and expressed strong doubts of the practicability of perfecting it. I gave his lordship my word and honour that if, in the course of my making it, I should discover the least doubt of complete success, I would not pursue it further, but break into fragments what advance I might have already done; and I also invited the honour of his lordship's investigation during the presumed lengthened process. With this understanding his lordship kindly gave me permission. I had the necessary scaffolding placed round the vase for convenience, and it took four of my artists (Mr. Hollings and his three sons) upward of eight months to complete all the models prepa-

ratory for the casting, &c. &c. Thus far during 1816. The other part of the processes will be spoken of

under their proper dates.

1816.

1816. In March, 1816, I received the honourable appointment of Vice-Consul to Louis the Eighteenth of France.

## " Consulat-Général de France en Angleterre.

"Nous, Armand Louis Maurice Ségnier, Chevalier de Saint Louis, Chevalier de la Légion d'honneur, Lieutenant Colonel de Cavalerie, Consul-Général de France en Angleterre, ayant reconnu nécessaire au bien du service de sa Majesté très Chrétienne, et utile aux Négocians et Navigateurs Français d'établir dans la ville de Birmingham, un agent de notre Consulat-Général, et étant informé de l'intelligence, du zèle, et de la probité du Sieur Edward Thomason, en vertu des pouvoirs resultans de notre charge, l'avons nommé et nommons par les présentes, agent du dit Consulat-Général. En conséquence nous enjoignons aux Capitains de Bâtimens Français, et á tous négocians, navigateurs, et autre sujets de sa Majesté très Chrétienne de le reconnoître en la dite qualité, et de lui obéir conformément aux lois, ordonnances, et réglemens concernant le commerce et la navigation. En même temps nous invitons les autorités, civiles et militaires, de la ville de Birmingham à l'assister en tant que de besoin dans l'exercice des fonctions qui lui sont déléguées par les présentes.

"Fait en notre Consulat-Général á Londres, le 12 Mars, 1816.

chwalin deguis

"Par M. le Consul.

"NETTEMEUR, Chancelier."

On the 23rd of the same month, I received the ap- 1816. pointment of Vice-Consul for Austria.

"Know all men by these presents, that I, the undersigned, His Imperial Austrian Majesty's Consul-General for Great Britain and Ireland, residing at London, have constituted and appointed, and by these presents do constitute and appoint, Edward Thomason, Esq., merchant and manufacturer, at Birmingham, to be my agent, and to act as my deputy in the said town and its dependencies, in aiding and assisting with his best advice all such Austrian subjects as, in the pursuit of their lawful concerns in the said town and its dependencies, may stand in need thereof; and to all and every such act and deed as I could or might do for the good of his Imperial Austrian Majesty's subjects if I were present, ratifying and confirming hereby everything my said Deputy do in and about the said premises.

"In witness whereof I have hereunto set my hand and seal of office in London, 23d March, 1816.

(hristoff Martens

"H. Impl. M. of Austria's Consul-Genl."

The same month, 1816, I was honoured by the appointment of Vice-Consul for both Portugal and the Brazils, by His Royal Highness the Prince Regent of Portugal and the Brazils.

"Saibad Lodos os que a presente virem que Eu, Joaquim Andrade, Consul Geral de Sua Alteza Real o 1816. Principe Regente de Portugal e Brazil, na Gram Bretanha e Irlanda, residente em Londres, tenho feito, ordinado, constituido, e nomeado, e pela presente faço, ordeno, constituo, e nomeo a Edwardo Thomason, Esc., residente em Birmingham, no condado de Warwickshire, para fer menagente e exercer as funçoens de meu Diputado e Vice Consul da nação Portugueza, na acima mencionada cidade de Birmingham; para ajudar, e assister a aquelles vassalos Portuguezes que d'isso necessitarem ou aquelles que tiverem que viajar, ou transactar, algum negociona acima mencionada cidade, seja na compra de fazendas, ou em qualqua outra especulação; de prestarthes assistencia e darthes consethos contribuaça aos seus interesses, ou a facilitarthes as suas transaccoens; e fazer em favor delles todos aquelles actos que Eu mesmo possa, ou podesse fazer a beneficio dos vassalos de Sua Alteza Real o Principe Regente de Portugal, em cazo de estar presente pessoalimento, ratificando e confirmando tudo o que meu dito deputado, legalmente fizer ou ordinar fer feito concernente ao acima especificado. Em fe do que mandu passar a prezente pormimassenada e lettada com o meu letto de officio em Londres, aos nove dias de Teverciro, no anno do nosso Senhor mil oito contos e dezaseis.

Joaquim Andrade

"Por ordem do Consul Genral,
"Alif. Andrade, Sec."

In April, I was honoured with the joint appointments 1816. of Vice-Consul for Sweden and Vice-Consul for Norway.

"Iag, Carl Tottie, Hans Kongl. Majts. Konungens af Sverige och Norrige General Consul i Stora Britannien, Irrland, och därtil hörande öar, gor härmed vetterligt for allum och en hvar som det angä kan, att Herr Edward Thomason, i Birmingham, är härmedelst utnämnd och antagen att vara Svensk och Norrsk Vice-Consul ä förenämnde ställe samt underliggande lagenheter. Till folje hvaraf han äger att med räd och handräckning hjelpa och bispringa alla de af Kongl. Majts. af Sverige och Norrige undersätare, som i lagliga ärender stadde äro och honom därom anlita mäga.

"Till yttermera visso, hafver jag detta egenhändigt underskrefvet och med Kongl. Consulatets sigill bekräfta latit, som skedde i London den tionde dagen i April, manad i det ett tusende atta hundrade och sextonde aret efter Vars Herres Jesu Christi Börd.



"Fullmagt för Herr Edward Thomason, att vara Svensk och Norrsk Vice-Consul i Birmingham."

1816. At this period I was honoured with the appointment of Vice-Consul for Prussia.

"Know all men, by these presents, That I, the undersigned, His Prussian Majesty's Consul-General for Great Britain and Ireland, residing at London, have constituted and appointed, and by these presents do constitute and appoint, Edward Thomason, Esquire, to be my agent, and to act as my deputy, at Birmingham, and its dependencies, in aiding and assisting all such Prussian subjects as may stand in need thereof, and to take care of their ships and effects, in case they should be driven on shore by stress of weather, or otherwise come to be damaged or endangered. In short, to do all and every such act and deed as I could or might do, for the good of His Prussian Majesty's seafaring subjects, if I were personally present; ratifying and confirming hereby everything my said deputy shall lawfully do in and about the said premises.

"In witness whereof, I have hereunto set my hand and seal of office, London, this 30th September, 1816.

P. Hebelery

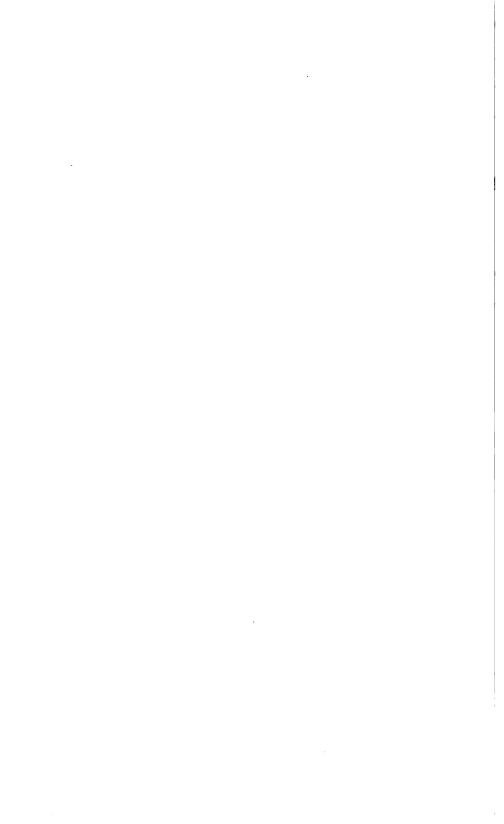
On the 27th of August, 1816, in conjunction with a small Dutch force of five frigates under Admiral Van Capellan, Lord Exmouth, with about ten sail of men of war, sailed to attack Algiers, and demand the immediate release and delivery up of all the Christian slaves. The expedition, although of so hazardous a nature, was completely successful, and the Admiral sailed from



IRON BERLIN CASTING OF OLD FREDERICK KING OF PRUSSIA,

PRESENTED BY THE PRUSSIAN MINISTER,

WITH SEVERAL OTHERS OF IRON CASTINGS.



Algiers, on the 3d of September, with the cheering 1816. conviction that he had not left behind one Christian prisoner. I caused a medal to be struck off in commemoration of the event, and called one of the national medals; but understanding that Sir Sidney Smith had, for above twelve months prior to this event, used all his energies to induce our Government, as well as that of France, to unite in such an expedition which would be worthy the character of both nations, as the triumph would not be made available for the purpose of aggrandizement, but to advance the general interests of humanity, I conceived that Sir Sidney's exertions, which no doubt led to the adoption of the expedition, were worthy of being recorded. I made one of the finest class, with an appropriate inscription.

In September, I addressed a letter to Sir Sidney, at Paris, mentioning the medal I had made of himself, and requesting to be informed of his agent's address in London, who would take charge of a silver medal.

On the 30th of September, I received a packet from the General Post Office, with the following note:-

M. Reeling presents his

compliments to Mr. Thomason, and has great pleasure in sending, under his frank, a packet which Sir Sidney Smith has consigned to Mr. Freeling's care.

General Post Office, Sept. 30, 1816.

1816.

"Paris, 99, Rue du Faubg. St. Honoré, Sept. 26, 1816.

" Dear Sir,

"I am duly sensible of your obliging attention towards me personally, and no less so of the interest you continue to take in the objects I have so earnestly at heart towards the final and complete abolition of African slavery, white and black. vou are so good as to offer me, and for which I beg you to accept my best thanks, can be conveyed to me as I send this to you, under cover to Mr. Freeling, with a request that he will send it to Downing Street, to go by a messenger, as my postage ruins me. My expenses of that sort, including stationery, since I have been in the service, have cost me more than my pay annually, particularly lately, when every man in Europe who thinks as I do on the slavery of the whites in Barbary, thinks it also right to participate his ideas, and hopes, and wishes, to the centre of the machinery which, it is known, I have set and keep in motion towards the final accomplishment of the great work in hand. adopted your method of addressing the many by medals, which, passing from hand to hand in Africa, with short pithy, moral sentences, extracted from the Koran, thereon, and verses easily remembered, occasion the inhabitants to be of one mind with us as to the utility and necessity of eradicating the evils (piracy and slavery on the coast and in the interior) which bar the approach and prevent the circulation of more licit commerce than that in human flesh, which latter, as well as monopoly of grain, is strictly interdicted in the Koran.

"In return for your flattering present, I beg your

acceptance of a series of some medals I have had en- 1816. graved and struck here, in the Royal Establishment, which favours my views towards the object of humanity all in its power. The metal is what they call 'cuivre jaune,' lacquered with a gold varnish, the same as what is used to prevent the conductors of electrical apparatus from oxygenating, and giving a copperv odour on the touch. I presume it must be too hard to allow the die to strike many, as a large one, having thereon the sentence of the Koran which describes the Christians as a good and friendly people, (which I meant for the Christian tribes in the interior of Atlas to shew to their powerful, inimical neighbours in the plains, and to prevent the success of the appeal of the Algerines to the fanaticism of the Mahometans against us) broke on the first blow. Was I to make a new set of these, with the

additional sentences to increase the number of charges, I should think your white metal, imitating silver, would be better: in that case there should be more volume of

muslin at the sides of the turban.

"Was I not still in your debt, and unable to pay you, or even assign a time when I can pay anybody, till Government reimburses me the money I have sunk to realize the objects confided to my discretion as to the mode of attaining them, or the spot in which I could wait for or expect to receive precise instructions and precious 'authorization,' on every point connected therewith, I should not hesitate to request of you to send me a few of these in the same, or white metal, as the price they ask here for these is nearly as much as the same weight in silver, which is, of course, beyond the means of the funds of a charity already much in debt to me. I send you a few more loose numbers. No. XI. answers

1816. the question which may be put to you how to procure the entire series.

"Coutts is the banker of the Knight Liberators.
"Your obliged and faithful servant,

p. may Imile

" Mr. Thomason."

In the beginning of December, the Grand Duke Nicholas of Russia visited my manufactory, and having already a die of the Emperor, his august brother, I made, with all dispatch, an obverse die, commemorating the visit to Birmingham; and when the Grand Duke arrived at that department in my works called the medal press-room, and everything being previously prepared, I solicited His Imperial Highness to move the balance-wheel of the great machine, which produced a fine medal in silver, and which the Grand Duke, with every courtesy, accepted.

I dispatched two by the same day's mail, one for the Ambassador, Count de Lieven, and the other for the Consul-General of Russia, which brought, by return of post, the following letter:—

"London, 37, Great Coram Street, 9th Dec., 1816.

"Sir,

"I beg you to accept my best acknowledgement for your obliging remembrance in sending, as well to me as to the Ambassador, Count de Lieven, the medal struck off the 3d inst., the very moment His Imperial Highness the Grand Duke Nicolas Paulovitch was visiting your excellent and, in every respect, admirable manufactory. I will keep it with a particular pleasure, not only as a recollection of the High Visitor's instructive travels, but even as a fine specimen of the improved machinery by your taste, and unfatigued and, I dare say, unrivalled application and assiduity, in contributing to the preferment of fine arts and ingenious works in your industrious and dexterous country.

"My bearing of such a just testimony of your celebrated activity may be indifferent to you, Sir; but still, being frank, and united to that of other versed travellers and connoisseurs who had the good fortune of inspecting your establishment, it can by no means be considered as a kind of flattery, without which, but with great esteem, believe me,

"Sir,

"Your most obedient humble servant.

Adedribatchefiskij

" Edward Thomason, Esq.,

"Church Street, Birmingham."

There had been established in Birmingham, for about fifteen years, a society called the Birmingham Philosophical Society. It was commenced by six gentlemen, of whom I was one, in the year 1800, merely as a confined private society, for the improvement of each other in the sciences of electricity, pneumatics, mechanics, &c. This little society was decided upon in consequence of a sale of the effects of the Marquis of Donegal, at Fisherwick, near Lichfield, in which catalogue was advertised—"A complete new air pump, with very extensive apparatus to exemplify the newest experiments, packed in a very large mahogany case with cloth divisions, never having been unpacked."

1816. "A complete electrical machine, with very extensive apparatus, adapted for every known experiment, quite new, and never having been unpacked."

We purchased these philosophical apparatus, and hired a room, and met weekly to experiment, confining our meetings, during the first few months, to pneumatics, electricity, and mechanics, which naturally led to a thirst for information in the other sciences, as geology, mineralogy, metallurgy, chemistry, &c. This could not be accomplished, merely as a beginning, without ample funds, therefore, in January, 1803, we increased our society to twenty members, or fellows, each paying the sum of twelve guineas to the treasurer, and an annual subscription of four guineas, and the society to be called "The Birmingham Philosophical Society." The rules, which were printed, consisted of twenty clauses.

Rule I. was—"That the number of members shall be limited to twenty." It consisted of

Walter W. Capper John Petty Dearman William Cope Samuel Lloyd Charles Plimley Thos. Robinson. jun. William Francis George Barker John Blount Thomas Welch Edward Thomason Richard Lawrence James Woolley J. Johnstone, M.D. Robert Bree, M.D. George Freer E. M. Noble Samuel Dickenson Francis Rogers, M.D. William Whitmore

Rule III. "That this Society shall have two sessions in the year. The first from the third Monday in January to the last Monday in May; and the second to commence the first Monday in September, and to terminate the second Monday in December."

Rule XI. "That every member shall, in his turn, 1816. (which turn shall be determined by the quorum) lecture upon some philosophical subject, to be chosen by himself, and approved of by the quorum of the committee."

This was the state of the society in 1803. The applications for admittance soon became so numerous, that it was increased to the number of about two hundred; a large building was purchased, and a theatre added to it, with a gallery that would, with the floor, accommodate above three hundred. The seats were crimson cushioned, and it became the fashion even for the ladies to attend, and the meetings were generally filled to overflowing. The annual income arising from subscriptions in the year 1812 was between £700 and £800. I delivered a lecture in my turn upon the steam engine, the vitrification of coloured glass, several on mineralogy, and this year I delivered a lecture upon the diamond.

November, 1816.

A Lecture delivered by Edward Thomason, a Fellow of the Birmingham Philosophical Society, called the Philosophical Institution.

Our lecture for this evening will be on the subject of Mineralogy. I have already given four lectures upon this branch of science.

The 1st, an Introduction to Mineralogy in general.

The 2d, on the Generic Characters of Fossils.

The 3d, on the External Characters of Fossils.

The 4th, on Chrystallography, or regular forms of Fossils.

1816. And, in continuity of the science, I arrived at that branch called the Constituent Principles of Fossils; that is, we should decompose and chemically analyze fossils to discover their constituent principles; for, as simple combustible substances constitute the first order of classification, how are we to know where to place the diamond if we are unacquainted with its constitution?

When we wish to class natural bodies, we must necessarily seek some principle by which this *determination* shall be regulated; but this principle must likewise exist in the nature of these bodies, because their order or succession must be natural.

We have now to examine where these relations occur in natural bodies; but we find a difference in them, for they resolve themselves into two principal kinds, of which the relations of the one, meaning plants, exist in their formation, or mode of aggregation; whilst fossils, in their mode of constitution, or combination of their constituent principles.

It is true both are as natural bodies aggregated, and their parts chemically constituted.

But plants are aggregated of parts different from each other, called organs, in which their relations exist; fossils, on the contrary, are aggregated of wholly simple and uniform parts, and their relations, therefore, cannot exist in their aggregation, but must necessarily be found in their constitution.

As a proof of this, if a plant be divided into any possible number of small parts, neither of these single parts can be said to constitute the same plant, because each of the single parts no longer possesses the same relation which constituted this whole to this plant. It is on the contrary with fossils, for if a fossil be divided, each of its parts,

even the smallest atom which can possibly be obtained 1816. by mechanical division, will still and ever be the same fossil.

But when a fossil is chemically resolved into its constituent principles, each single constituent principle will no longer form the same fossil, becauses it possesses not the same relation which it possessed by its constitution. For instance, if cinnabar (red sulphurate of mercury) be resolved into quicksilver and sulphur, which are its constituent parts, neither of these constituent principles can be said to form the same fossil of whose constitution it before formed a part. The relations of fossils must, of course, necessarily exist in their constitution.

It is, therefore, fortunate for botanists and geologists, that, on the subjects of botany and geology, they can immediately find the relations of the exterior of these bodies, and when they class them according to their conformation, or the association of their external parts, they, at the same time, also describe their external characters, and thus accomplish both together.

Mineralogists, on the contrary, have a very different task, for, in the *first* place, in order to class fossils, they must determine their constitution by the result of chemical investigation; and, in the second place, in order to describe them, they must discover their natural external characters. The external characters I have already explained in our former lectures.

The lecture this evening will be only the commencement of a series upon the constitution or constituent principles of fossils, for there are about 350 distinct specimens to be examined, by chemical analysis, before we can arrive at the clear method for arrangement or classification for the cabinet, viz:—

1816.	1.	Earthy substances—such as limes, which					
		constitute	•	•	•	-	76 species
	2.	Strontian	•	-	•	-	2
	3.	Barytes	-	-	•	-	<b>5</b>
	4.	Magnesia	•	•	•	-	24
	<b>5.</b>	Zircone	-	•	•	-	2.
	6.	Glucine	•	•	-	-	3
	7.	Alumine	-	•	•	-	46
	8.	Silex -	-	•	•	•	48
	9.	Saline substan	nces	•	•	-	9
	10.	Inflammable	substanc	es	-	-	25
	11.	Metallic subs	tances	-	-	-	96
	12.	Rocks -	•	•	-	-	22
			Total	•	•	-	<del></del> 358

It will be seen, then, that to exemplify about 360 species will occupy a period of several lectures.

And my motive for selecting only one of these substances to lecture upon and explain this evening is, because the *Diamond* belongs to, and is always classed with, the twenty-five inflammable substances, and, from its peculiar beauty and arbitrary value, is allowed to be most important; and its history furnishes us with some singular information, as it holds the first rank and place in the cabinet of the mineralogist.

Sir Isaac Newton having observed that inflammable bodies had a greater refraction, in proportion to their density, than other bodies, and that the diamond resembled them in this property, he was induced to conjecture that the diamond itself was of an inflammable nature. The inflammable substances which he employed were camphor and amber, which he called "fat, sulphurous,

unctuous bodies," and observed, that he considered the 1816. diamond an "unctuous body coagulated."

This remarkable conjecture of Sir Isaac Newton has been since partly confirmed by experiment.

The first experiment to prove the combustibility of the diamond was to expose it in a focus of a great lens, which was performed in the laboratory of the Grand Duke of Tuscany, at Florence, in the year 1694.

It was found that, though the diamond was capable of resisting the effects of the most violent heat when the air was carefully excluded, yet on being exposed to the action of heat with air it might be entirely consumed! It became first of a clear red, and soon after appeared to enlarge in bulk, the result of its entering into combustion: at length it entirely disappeared, without leaving the smallest residue.

No attempt was made, however, to determine whether it was a distinct substance, or one of the inflammable bodies, until Lavoisier, the celebrated French chemist, undertook a series of experiments for this purpose. He exposed the diamond to the heat produced by the focus of a large lens, in contact with oxygen gas, and was thus enabled to burn it in a close vessel. After the combustion was completed, the close vessel or glass jar (being the receiver) was found filled transparently with the two gasses, the oxygen and carbonic acid gas. To prove by experiment that gas produced by the decomposition of the diamond was composed of a gas called carbonic acid gas, a portion of it was forced out of the jar into a tumbler of pellucid lime water, which immediately became turbid.

Now carbonic acid gas has the property or effect to cause clear or transparent lime water to become turbid;

1816. but oxygen gas has no such property, it will not in the least turn lime water turbid.

This experiment proved that the gas arising from the combustion of the diamond is carbonic acid gas!

And Lavoisier also observed that the air produced by the combustion precipitated from lime water a white powder, which he found to be chalk, and that this chalk was soluble in acids with effervescence, which convinced him of the resemblance of charcoal to the diamond, and, consequently, that each of these substances belongs to a class of inflammable bodies.

The task to ascertain the real nature of it was left to Mr. Tennant, when he clearly proved that it consists entirely of charcoal, differing from the usual state of that substance only by its crystallized form. From the extreme hardness of the diamond, a stronger degree of heat was required when exposed merely to the air then can easily or conveniently be applied in close vessels, except, as I have before stated, by means of a burning lens! But with NITRE its combustion may be effected in a very moderate heat.

He procured a tube of gold which, by having one end closed, served the purpose of a *retort*, a glass bulb being adapted at the other end to collect the air produced.

He placed a diamond of ten grains with one ounce of nitre into the tube; a strong red heat was given to the tube during an hour and a half; the fixed air which came over was not produced by the inflammation of the diamond, but by the decomposition of the nitre, for the fixed air of the diamond was retained by the alkali of the nitre. When the tube had grown cold, this alkaline earth, with the whole contents of the tube, was

immediately thrown into a vessel of warm water, and 1816. dissolved.

This solution then contained nitrous air, fixed air, the alkali of the nitre, and water.

To obviate the possibility of the fixed air escaping, as it is well known to have the strongest affinity for calcareous earth, a saturated solution of marble in marine acid was poured into the alkaline solution; the vessel was then closed, and left undisturbed until the precipitation had taken place; the clear liquor was then poured off from this calcareous precipitate, and by trying it with lime water it was found to be free from fixed air.

The precipitate was then put into a glass globe having a tube annexed to it, that the quantity of fixed air might be accurately measured; quicksilver was then poured into the glass tube, which already contained the calcareous precipitate, as was necessary to fill it; it was next inverted in a vessel of quicksilver. Some marine acid was now made to pass up into it.

This marine acid expels or displaces the fixed air from the calcareous earth, and which fixed air occupies the top of the tube, and, by its elasticity, presses down the quicksilver, and in appearance leaves a void in the tube equal to the space that would occupy forty ounces of water.

Now it has always been agreed that the quantity of fixed air produced from ten grains of charcoal occupies a bulk equal to forty ounces of water.

This experiment clearly proves that the diamond and the charcoal are constitutionally the same.

I would have ventured to exhibit at this evening's lecture the decomposition of the diamond, with nitre, in

1816. a gold tube, after Mr. Tennant's method, if the funds of this institution could and would have permitted it; but it will at once be seen, that the expense of a gold tube, together with a diamond required of ten grains, places the expense of the experiment beyond the means of the finances of our Society to entertain for a moment.

I have, however, made and appended to the screen a large drawing or diagram, to elucidate the method adopted for dissolving or decomposing the diamond, by collecting the sun's rays with a powerful lens, being, in my opinion, the most intelligible mode of conveying the manner practised.

A is an air pump.

T a glass conical form receiver.

G a glass globe form receiver.

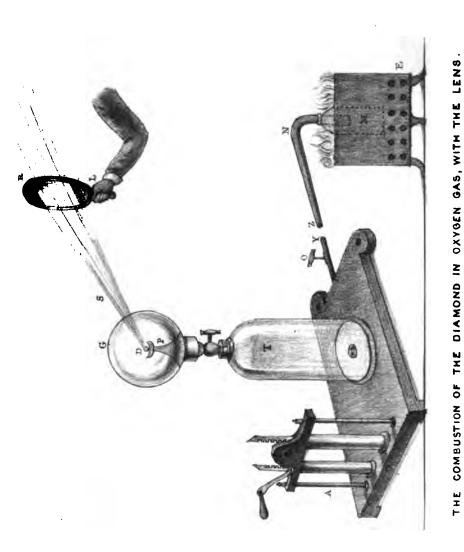
F a portable fire-air furnace.

L a powerful lens.

Open the cock C, between the two glass receivers G and T, and with the air-pump extract the air from both; place the diamond D, of ten grains weight, upon the platina capsule, supported by the platina legs P, supported in the inside of the glass globe G.

The apparatus is now ready to receive the oxygen gas. M in an iron bottle containing pulverized oxide of manganese, with a tube adapted to be hereafter connected with the tube of the air-pump.

The bottle (iron bottle) M is heated red hot by the air furnace F at the high temperature required to decompose the manganese; as part of its oxygen is given off, a watery vapour is evolved; when this subsides, lute the metal tube Y and Z together, and open the cock O, which will cause the glass jar receiver T, and the globe receiver G, to be instantly filled with oxygen gas; then





shut the cock C to cut off the communication between 1816. G, the glass globe receiver, and T, the glass tall receiver, and also shut the cock O.

The apparatus being now ready to receive the sun's rays through the powerful lens L, converge these rays to a point to impinge upon the diamond D. In a short time a most brilliant combustion takes place, in consequence, perhaps, of being burnt in oxygen gas. The diamond is entirely consumed, and disappears, being converted into carbonic acid gas. The weight of the globe receiver, together with the weight of the volume of gas therein, is to be noted down before the diamond was placed in the platina capsule, in doing of which the oxygen gas is of course drawn out or has escaped, but when the diamond has been properly placed, the globe is refilled with the oxygen gas, preparatory for combustion. Agreeing, then, that the oxygen gas in refilling the globe the second time is exactly the same weight as the first time, the difference, after the combustion of the diamond, should, on weighing the globe, be exactly an increase of weight of ten grains, which will be found to be the case if the experiment is scientically and nicely performed.

There are few things in the history of mankind that, at first sight, appear so remarkable as the prodigious value which, by common consent, in all ages, and in all civilized countries, has been attached to the diamond. It would almost seem incredible that a transparent crystallized stone, about the size of a pullet's egg, should have been sold for £90,000 in money, an annuity of £4,000 besides, and a patent of nobility into the bargain; but all this was given, by the Empress Catherine of Russia, for the famous diamond of Nadir Shah!

Among ornaments and luxuries, Diamonds unquestion-1816. ably occupy, and have ever occupied, the highest rank. The beauty of this gem depending on its unrivalled lustre is, no doubt, the circumstance which originally brought it into notice, and certainly, notwithstanding the smallness of its bulk, there is no substance, natural or artificial, that can sustain any comparison with it in this respect. The varied and vivid refractions of the Opal —the refreshing tint of the Emerald—the high coloured lustre that distinguishes the Ruby—the ethereal light that streams from the Sapphire—and the golden rays that emanate from the Topaz-beautiful as they are, seem lost, at a small distance, in comparison with the Diamond, which, although it has no colour of its own, imbibes the pure solar ray, reflects it with undiminished intensity, and refracts it into such prismatic colours, combining unequalled brilliancy; and whether blazing on the crown of state, or diffusing its starry radiance from the breast of titled merit, in courts or high solemnities, it proclaims to the most distant circle of the surrounding crowd the person of the monarch, of the noblesse, or of the beauty.

Diamonds of a large size are so rare, that their number scarcely amounts to twenty-five in the world, and, perhaps, only about two-thirds of that number in Europe. These are nearly in the possession of sovereign Princes; hence the acquisition of a moderate size diamond is what mere money cannot always command.

When the Czar Peter the Great, and his whole army, was surrounded by the Turks, he owed his safety to the fascinating splendour of the diamonds of his Empress!

The regent diamond of France was played by the Abbé Sieyes with such success before the Sovereign of

Prussia as to produce for the service of France 40,000 1816. horses, with their equipments.

The only places where this extraordinary gem has been found, in modern times, are the southern parts of India Proper, the peninsula of Malacca, the island of Borneo, and the mountainous district called Serro do Frio, in the Brazils. Neither the rock in which it occurs, nor the other minerals with which it is accompanied, in Malacca, and in the island of Borneo, are at all known; but in the southern part of India the class of minerals which accompany diamonds is better understood.

There are four diamond mines in the East, three of which are situate within a few days' journey of Golconda. One of these is called Ralconda, which produces in general very small stones, seldom more than three carats in weight. The mine called Coulour is famous for diamonds of a large size—from ten to forty carats; now a carat of diamond is equal to four grains, which must not be confounded with a carat of gold, as a carat of gold is twelve grains.

It was in the mine of Coulour that the wonderful diamond of Aurez Seb, the Great Mogul, was found, and which weighed 795 carats. The stones in this mine are not very clear, and, extraordinary to tell, are generally tinged with the colour of the soil. There are generally many thousands of men, women, and children, at work in this mine.

The third mine is that of Samalpour, which lays nearer to Bengal. This mine is actually in the bed of the river, and is the mine which produces the natural sparks, or diamond points, used by glaziers for the purpose of dividing plates of glass.

The mine in the island of Borneo is in the bed of the

1816. river; but we are but little acquainted with this mine, for the Queen who reigns in that part of the island will not allow any stranger to visit the place, nor, indeed, to have any dealings in diamonds. The stones are generally smuggled to Batavia, and bought up by the Dutch, who say that they seldom knew that any one stone was sold from this mine that weighed more than from twenty to thirty carats.

The other diamond mines are situate in the Brazils. about three hundred and fifty miles north of Rio de Janeiro, in the diamond district, and which are called the diamond mines of Serro do Frio, the town of Tejuco being the capital, and the principal mine is upon a river called Jagétonhona; and no foreigner had ever been permitted to visit these mines until August, 1809, when Mr. John Mawe, of the Strand, the author of the "Mineralogy of Derbyshire," obtained permission, from the Prince Regent of Portugal, through the influence of our Ambassador at the Brazils, to explore the diamond mines of Serro do The minister Condé de Linhares ordered pass-Frio. ports and letters of recommendation immediately to be made out, sanctioned by our Brazilian Ambassador, Lord Strangford; and, on the 9th of August, Mr. Mawe set off on his journey, attended strictly by a file of soldiers, and, no doubt, watched and treated by all the captains of the stations with the most suspicious and jealous feeling. On the 17th of September, Mr. Mawe arrived, with the two soldiers, at Tejuco, the capital of the diamond mines, and delivered his letters to Mr. Fernando de Camara, the Governor. The stratum of materials in which the diamonds are discovered is called by the natives cascalhāo. It is composed of granite, fieldspar, hornblende, quartz, mica; no metallic substances, except

some grains of gold and oxide of iron, appear. This 1816. composition, or cascalhāo, is raked into troughs, with water passing through. The largest stones are thrown out, and the residue examined with great care for diamonds, and when a negro finds one he stands up and claps his hands, and holds the gem between his fore-finger and thumb; the overseer receives it from him, and deposits it in a bowl suspended from a rafter of the awning, and which bowl is half filled with water. It is said that, including all the mines in the Brazils, near 10,000 people, including men, women, and children, are employed; and when a negro finds a diamond equal in weight to seventeen and a half carats, he obtains his liberty. During Mr. Mawe's visit, it so occurred that one of sixteen and a half carats was found; but since that period very few have been found that exceed that weight; and it is said that not one of twenty-five to thirty carats has been discovered for many years. Providence, in his wisdom, it appears, has so ordered, that the diamond, the most beautiful of all the gems, is the most rare; that gold, the most durable of all the metals, is the most scarce; and that iron, the most useful of all the metals, is abundant everywhere!

#### Colour of Diamonds.

The diamond is either colourless, or light brown, passing into wine colour; cinnamon brown, passing into blackish; pale green, passing into yellowish green; blueish grey, passing into Prussian blue; and a pink colour; but when of these colours they are generally of a dull faint tinge, which much reduces their value.

of water, and hence called diamonds (by some persons or traders) of the first water, others diamonds of the second water, and so on, according to their purity.

#### EXTERNAL FORMS OF THE DIAMOND.

1st, The Octahedron.

2d, The Octahedron with bevelled edges.

3d, The Dodecahedron accurately bevelled in all its angles.

4th, The Octahedron, in which each plane is divided into six; so that the figure has 48 triangular faces.

5th, The Octahedron, with the edges truncated.

6th, The Dodecahedron.

7th, The Sided Prism accumulated by three planes.

8th, The Rhomboidal Dodecahedron.

9th, The same figure, with the angles less acute.

10th, The Octahedron, having each of its angles truncated, and also the extremities truncated.

11th, The Twin Crystal.

The Integrant Molecule being the Tetahedron.

It appears, however, that diamonds are generally of the Amorphous forms.

We can readily suppose that all amorphous stones of gems, &c., except the diamond, have been rounded by attrition, perhaps at the period of the flood; but as diamonds are the hardest of all substances, and are never found in sufficient quantities to have this effect, we are unable to account for this alteration of Nature; for the lapidary is only enabled to cut the diamond by pulverized diamond dust, as it is called, which dust is obtained from

pulverizing the bad-coloured diamonds in a small steel 1816. mortar, the particles of which will (by using a high magnifier) be found Tetrahedrons. On account of this excessive hardness, mineralogists agree that the amorphous form cannot be from the effect of attrition.

The diamond is far from being difficult of fracture; a slight blow with the hammer will readily break it, and then exhibits its straight lamellar structure. It has, in fact, a distinct foliated texture, similar to mica: the cleavage is fourfold, parallel to the face of the octahedron, the fragments being either octahedral or tetrahe-Its hardness is twenty; lustre, four. It has also dral. the quality, on being rubbed, of becoming electric, even before it is cut, which is not the case with any other crystallized gem.

As the diamond will bring nearly the same value in all European countries, it is of more importance than persons generally are aware of to be conversant with the mode of calculating its price, conformably to its size, by some general rule, because it is the most secure way for a person to carry his property from one country to another; it thereby becomes desirable to be a judge in the value of the diamond, to enable him to convert his property into diamonds, whose prices seldom fluctuate more than 5 to 7½ per cent.; whereas bills of exchange are, at all times, dubious and expensive, and specie cannot, in many countries, be had; and, if purchased with bills, the exchange makes it expensive.

When I speak of diamonds being thus purchased, I mean diamonds unset-in the state they are to be found in the hands of the diamond merchant at the capital of every country in Europe, and they will be found so portable that £100,000 may be compressed into a mode-

1816. rate size pocket-book. I have made a slight diagram of six sizes, viz.:—

Weight of 1 carat, or 4 grains 2 carats, or 8 grains 3 carats, or 12 grains 4 carats, or 16 grains 5 carats, or 20 grains 6 carats, or 24 grains

The sizes generally upon sale are from, perhaps, a quarter of a carat to six carats, and between one carat and five are the sizes generally worn by gentlemen on the shirt or cravat.

The calculation of the value of diamonds of the abovenamed six sizes, and, indeed, of all diamonds, however large, are governed in conversion by the following fixed rule:—

Suppose a diamond of two carats in the natural state or rough state. As it loses in cutting about one half, double the weight; then square the weight so doubled, which produces the product; then multiply the product by two, which produces the sum or supposed value of the gem.

Thus a diamond of 2 carats,

2 or double to cover the loss in cutting.

4 Square the amount.

16

2 Multiply the sum by 2

£32 The value of a stone of 2 carats.

Suppose one of 50 carats.

1816.

In fact, a diamond of double its weight is always four times in value.

I have already mentioned that there are scarcely twenty large diamonds in Europe and Asia, and these almost invariably in the possession of foreign princes; and are set in the hilt of the dress sword, or in the sceptre which the Sovereign holds on state occasions, and with foreign princes frequently upon the arm. And as these are only exhibited to the public, and at a distance, on levee days, the greatest difficulty has arisen to those few travellers who may have had the opportunity to calculate upon their magnitude or size, from recollection, or from an appearance of them.

It appeared to me that the only mode to be adopted to arrive at conclusions that would, in some degee, identify their sizes, would be to make a vitrification whose specific gravity should be the same as the specific gravity of the diamond, which is 3,500, water being 1,000 in an equal bulk; diamond being, as near as possible, three and a half times as heavy as water.

I was well aware of the many and repeated trials, in experimentalizing, to make a paste, or body of glass.

1816. exactly of this gravity, viz., three and a half times the weight of water.

I could not find any natural mineral, except the malachite, of such exact specific gravity, and this mineral being opaque, it would fail in conveying to the eye the true appearance of the size.

The specific gravity of crystal is only 2,650, and the specific gravity of white flint glass 3,100, falling short of what I required.

I conceived it possible to impregnate white paste glass with a metallic oxide, and de-oxidising or vitrifying the whole mass or body; in which I succeeded, with antimony for its base. Thereby I procured a brilliant transparent yellow paste, the cubic inch of which proved to be three and a half times the weight of water.

Of this yellow brilliant paste I have had a cubic inch mathematically cut. This cubic inch is upon the table before you; and to prove to you that I have been successful in the experiment, I will try it by the hydrostatic balance. If the weight, then, of any substance in air be divided by what it loses in water, the quotient will shew how much that body is heavier than its bulk of water.

You perceive that this cubic inch weighs in air 35 dwts.  $17\frac{1}{2}$  grains, and that it loses in water, that is, when weighed in water, 10 dwts. 5 grains; consequently, if we multiply 10 dwts. 5 grains by  $3\frac{1}{2}$ , its product is 35 dwts.  $17\frac{1}{2}$  grains.

Although so far successful, I must content myself in producing all the diamonds of a *yellow* colour instead of a *white* colour, because I could not obtain any other vitrified transparent composition of the true specific gravity; and this, you will perceive, is fortunately of a most exquisite brilliancy.

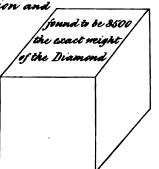
### Cube of Yellow Paste Glass Weighed hydrostatically at the

Institution and

When a Slave finds a Diamond of 17th Camits, he gains his Liberty.



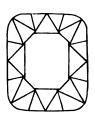




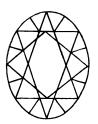
The Piggot.



The blue Hope.



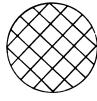
The Auckland.

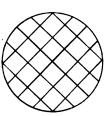


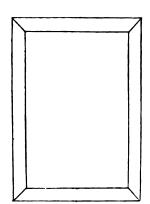
The Four Persian Rose Diamonds.

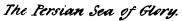


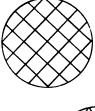


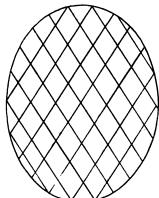












The Persian Mountain of Splendour.

•

1st. What was next wanting was to obtain the infor- 1816. mation of the exact weight of each of the different large diamonds, perhaps about twenty in number, said to be in the known world.

2dly. What was the form of each.

And 3dly. Whether brilliant-cut, rose-cut, or flat table form.

The different Encyclopædias, and the History of the Courts of the several countries possessing these diamonds, gave me the clue to most, except the diamonds belonging to the King of Persia, the weight and form of which were lately brought over to England by Sir John Malcolm.

I applied to some of the Directors of the East India Company to be permitted to copy the drawings of the six large diamonds belonging to the King of Persia, who gave me every facility, and thereby enabled me this evening to exhibit their sizes and forms, in common with others, making the models tolerably complete, in size and shape; altogether, or in the whole, of twenty-four stones; and the brilliancy of them, owing to the accidental success in the vitrification of the oxide, is alone very favourable for our illustration in this evening's lec-I will endeavour to enter into the history of each, without vouching for the authenticity of the statements, because there have been so many various versions in the reports; yet, after much research, I hope that I have taken the most probable data for our guidance and comprehension.

In England, during the last century, we can only calculate of having had four very large diamonds, at least of more than 36 carats in weight, or the value of £10,000.

1816.

#### 1st. THE AUCKLAND.

The Auckland diamond is understood to be in the possession of Lord Auckland's family, and was brought from Hindostan by a branch of the Auckland family. It weighs 36 carats, and its value, according to the table, is £10,368; but, in consequence of a little deformity in its form, £8,000, report says, is the largest offer made for it.

#### 2nd. British Crown.

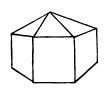
The largest diamond in the British Crown weighs only 36 carats. It is of a long quadrilateral form, of inferior water, and extremely thin; hence its great spread for its weight; its value, according to the table of calculation, is £10,368.

#### SRD. THE PIGGOT.

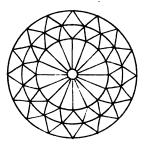
The Piggot diamond was brought to England by Earl Piggot, the Governor General of India. It remained with the Shropshire family of this name for many years, who were unable to dispose of it by private contract. They petitioned the British Government, in the year 1800, to be permitted to dispose of it by way of lottery for £30,000, in 15,000 tickets at £2 each. The family could only dispose of about 10,000 tickets, and the prize was obtained by two gentlemen who joined in the purchase of the lucky ticket. This diamond was of an oval form, and a tolerably perfect brilliant, and its weight was  $47\frac{1}{2}$  carats, consequently only worth, according to the table of calculation, £18,040. Report says



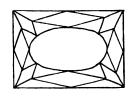
## The Holland Cone.



## The Ottoman Brilliant.

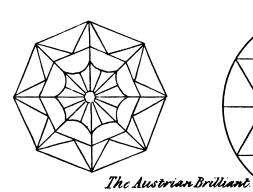


## The British Crown.

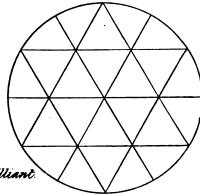


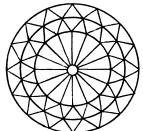
The East India Comp Nassac.





The Rajah Mattan. The Great Mogul Rose.





that the two London tradesmen who obtained this prize 1816 had much dispute which of the two should hold it in possession, and what value should be put upon it to obtain a purchaser for it, and thereby turn it into specie, which would be the more acceptable and useful; and report said that the difference ran so high, that a lawsuit was contemplated, when the jury might have recommended the stone to be cut in half, which would have reduced its value to less than £9,000 in point of weight, and probably would have rendered the forms of inconvenient sizes for cutting into any other saleable stones. During the discussion Messrs. Rundell, Bridges, and Rundell made an offer of 8000 guineas, which was accepted. Messrs. Rundell, Bridges, and Rundell had no means of disposing of it; the funds of all the different sovereigns in Europe being engaged in the general war, their exchequers were too low to think of it. It was said that it was sent through the great commercial house of Messrs. Thulleson, in 1804, to be offered for sale to the Emperor Napoleon, and the war being renewed, it was kept by the then ministers until the conclusion of the war, in 1814, when, after great difficulty, and the demand of it being strongly insisted upon by our Ambassador at Paris, it was delivered into the hands of Mr. Edmund Rundell. It remained in this house, there being no purchaser, until the year 1830, when the Pasha of Egypt commissioned the Consul-General, Mr. Briggs. to contract with Messrs. Rundell, Bridges, and Rundell for the purchase of it, in the year 1830 or 1831, for the sum of £30,000; the Pasha requiring it to make a present of it to Mahmoud II., Grand Seignior and Sultan of the Ottoman empire.

1816.

#### 4TH. THE SANCI.

The Sanci Diamond, so called from Nicholas de Harlai de Sanci, its former owner; hence its name. It is as near as possible of the same size and oval form as the Piggot brilliant, only about one-eighth thicker, which allows it a superior brilliancy; it weighs about 55 carats, and cost £25,000. There was a long account of the history of this diamond in the *Morning Post*, revised and corrected by John Murray, F.S.A., whose account of it I will relate.

This diamond belonged to Charles the Bold, the last Duke of Burgundy, who wore it in his cap at the battle of Nancy, and it was found by a Swiss soldier among the spoils of battle after the famous defeat of his army in 1445, near Morat, in Switzerland, and in which battle he himself was killed. The Swiss soldier sold it to a priest for a florin, and the latter again disposed of it for 2s. 6d. In the year 1589 it was in the possession of Antonio, King of Portugal, and by him was first pledged to a French gentleman named De Sanci for 40,000 livres, and was subsequently sold for 100,000 livres. The family of that gentleman preserved the diamond for nearly a century, and till the period when Henry III. of France, after having lost his throne, employed a descendant of this family, who was commander of the Swiss troops in his service, to proceed to Switzerland for the purpose of recruiting his forces in that country, and having no pecuniary resources at command, he persuaded the same gentleman to borrow of his family the Sanci diamond, in order to deposit it with the Swiss Government as security for the payment of the troops. Accordingly the diamond



The Pitt France. The blue Diamond France. The Yellow Austria. The Table Russia. The Sanci France.

The Russian Ovoid.

The Russian Sceptre.

was /dispatched by a confidential domestic, who dis- 1816. appeared, and could not be heard of for a great length of time. At last it was however ascertained that he had been stopped by robbers, and assassinated, and his body buried in a forest; and such confidence had his master in the prudence and probity of his servant, that he searched, and at last discovered, the place of his burial, and had the corpse disinterred, when the diamond was found in his stomach, he having swallowed it when attacked by the robbers. The Baron de Sanci subsequently disposed of this diamond to James II. of England, then residing at St. Germains, from whom it passed to Louis XIV., and now remains among the crown jewels of France.

#### 5тн. THE PITT.

The beautiful diamond in France, called the Pitt, or Regent Diamond, was purchased by Thomas Pitt, Esq., grandfather of our late illustrious William Pitt. Thomas Pitt was Governor of Bencoolen, in Sumatra, and afterwards of Fort St. George, at Madras. It is said that the slave who found it concealed it in an aperture cut or made in the fleshy part of his leg, wearing over the wound a pitch plaister.

In the French paper, called the Journal de Savans, published for July, 1774, is the following account of it: -That one of the principal diamonds of the Crown of France, and which was purchased of an Englishman, was one of the eyes of the God Jagrenat, a famous idol, which stands in a pagoda, at Chandernagor, in the province of Bengal; that the said idol had since continued with one eye; but since, the idol has been better

1816. guarded. This relation of its history is not likely to be true, for the Pitt diamond, being an oblong square, its form precluded it ever having been used for an eye in an idol. This version of it, no doubt, relates to the diamond in the Russian sceptre, of which I shall have occasion to speak in the evening's lecture. In the English paper, the Daily Post, dated November, 1743, will be found Mr. Thomas Pitt's own letter upon it, in consequence of the black merchant, whose name was Surapta, having stated that Mr. Pitt had never paid him for it.

"About two or three years after my arrival at Madras, which was in July, 1698, I heard that there were some large diamonds in the country to be sold, which I encouraged to be brought down to me, promising the probability of my being a purchaser if the price was After which, one of the most eminent reasonable. diamond merchants in these parts came down to me about December, 1701, and brought with him a large rough stone, about 305 mangelms, and some small ones, which myself and others bought; but the diamond merchant, whose name was Jamchund, asked too extravagant a price for the great one, which induced me not to think of meddling with it. He, however, left it with me for four days, and then came and took it away again, and did so several times, insisting upon 200,000 pagodas for I did not bid him more than 30,000 pagodas, and had little thoughts of buying it even at that price. considered there were many and great risks to be run, not only in cutting it, but whether it might prove foul or clean, or the water good; besides I thought it too great an amount to venture in one bottom; so that Jamchund resolved to return speedily to his own country. So I but

remember that in the following February he came again 1816. to me, with one Vancaty Chittee, who indeed was always with him, when I discoursed with him about it, and he pressed me to know whether I resolved to buy it, when he came down to 100,000 pagodas, and something under before we parted, when we agreed upon a day to meet and make a final end of it one way or another, which I believe was the beginning of March, when we met in the consultation room; then, after a great deal of talk, I brought him down to 55,000 pagodas, and I advanced to 45,000 pagodas, resolving to give no more, and on his being determined not to abate, I delivered up to him the stone, and we took a friendly leave of one another. Mr. Benyon was then writing in my closet, with whom I discoursed of what had passed, and I told him now I was clear of it; when, in about half an hour, my servant told me that Jamchund and Vancaty Chittee were at the door, when being called, they used a great many expressions in praise of the stone, and told me he should rather I should buy it than anybody, and to give an instance thereof offered it for 50,000 pagodas. So believing that it must be a penny-worth, if it proved good, I offered to part the 5,000 pagodas, which he would not hearken to, and was going out of the room again, when he turned back and told me I should have it for 49,000; but I still adhered to what I had before offered to him, when presently he came to 48,000 pagodas, and made a solemn vow that he would not part with it for a pagoda under; when I went into the closet again to Mr. Benyon, and told him what had passed, saying that if it was worth 47,500, it was worth 48,000, pagodas; so I closed with him for that sum, when he delivered me the stone, for which I paid him honourably.

1816. as by my books appear." Calculating the pagoda at 8s. 6d., the rough stone cost £20,400 sterling. It was sent to England in 1701. The editor of the *Museum Britannicum* states, that the cutting and polishing of the stone cost £5000. Jefferies states that it was sold to the Regent Duke of Orleans during the minority of Louis XV., in the year 1717, for £135,000. Its weight is 136½ carats; whilst cutting, the chips, and what are termed the filings, were valued at from £7,000 to £8,000 sterling.

In 1791, there was a commission of jewellers convened in France to set a value upon it, when they valued it at 12,000,000 of livres, or £480,000 sterling, in consequence of its being faultless, and the true form and thickness of an oblong brilliant. It is the prime ornament of the crown jewels of France, and is allowed to be the finest diamond in the world, though not the largest. The Kings of France wore this diamond in their hats. Napoleon Buonaparte had it fixed in the pommel of his sword. Report says that this Regent Diamond was played with such success before the King of Prussia, by the Abbé Sieves, as to produce for the service of France 40,000 horses, with their equipments. This diamond was found in the famous mine of Porteal, in the kingdom of Golconda; its form, in the rough, an inch and oneeighth long, and three-quarters of an inch thick.

#### 6th. Blue of France.

The Bourbons of France possess the most superb blue diamond known; it belongs to the Crown jewels of France. It is nearly a perfect round brilliant, and of a rich sky blue colour. It weighs  $67\frac{1}{8}$  carats, and is

1816.

estimated at three millions of livres, or £140,000 sterling. You will perceive, that when a blue diamond is found of a form and thickness that will cut into a true brilliant, its price is not governed by the accustomed rule, because it is believed that there are only three or four in Europe; and a white brilliant diamond of the weight of 67 carats only produced £36,000.

I should like to hear of a blue diamond submitted to combustion, that the colouring principle might be ascertained, for there must be a something found besides carbonic acid gas, whether it would be from cobalt, or alumine lime and iron, or what metallic oxyde so vitrified.

#### 7th. The Holland Cone.

The Sovereign Prince of the Netherlands is only in possession of one large diamond, called the *Cone*, from its figure. It is of the finest water, but the form of it precludes it being, without great deterioration, cut into a brilliant for ornament. It came from the East Indies, and weighs 36 carats, and is valued at £10,368.

#### 8th. THE AUSTRIAN BRILLIANT.

The Emperor of Austria is in possession of an immense and beautiful brilliant diamond, which weighs 139½ carats. It formerly belonged to the Grand Duke of Tuscany. Tavernier says, that this diamond, although of exquisite beauty, has a little hue of the citron colour. It is valued at £155,682.

1816.

The Grand Sultan of the Ottoman Empire is in possession of a similar one, both in size and beauty, which weighs 140 carats, just half a carat more than the Austrian. It is a perfect brilliant, and has rather a citron tinge, and is valued at £156,800. Robert de Baquen says, that this diamond, with that of Austria, formed one stone, and that it was absolutely cut into two to satisfy the two potentates. This Robert de Baquen was the grandson of Louis de Baquen, who invented the art of cutting diamonds; and I think this very probable, as the diamonds are as nearly as possible of the same size and hue; for a diamond weighing near 300 carats would be too large to be conveniently worn as an ornament.

#### 10th. The Russian Sceptre.

The Emperor of Russia is in possession of three large diamonds, of the largest and finest class.

First, the round brilliant which adorns the sceptre of the Russian Empire, under the eagle at the top of the sceptre. From the accounts given by Bomare, Magellan, and Dutens, it weighs 779 carats; and, in conformity to the table of calculation, it amounts to the enormous sum of £4,854,728 sterling. It is stated that this diamond was one of the eyes of the Malabarian idol, named Scheringham, and it was stolen therefrom by a French grenadier, whose trade had formerly been a jeweller. He, by some means, obtained the knowledge that this idol carried for the eyes two immense diamonds; he deserted from the India service, and went up the country as far as the pagoda which contained this idol God, and

there contrived to become one of the priests of that idol. 1816. He took an exact measure of the size, form, and cutting of the eyes; he formed a piece of ebony wood to the exact dimensions, with all the facets marked thereon, and managed to send it to Europe to have a piece of glass, called paste, cut exactly to match it in form, size, facets, and bezel, which was conveyed back to him in India. He then cleverly took out one of the eyes of the idol, and, in a workmanlike manner, placed in the socket or bezel the glass eye, which remained undiscovered by the ignorant guards. He ran away to the English, who were stationed at Trichinopoly, and thence to Madras. A captain of one of the East India large ships, who was preparing to sail for England, bought it of him for 20,000 rupees, and agreed to bring the French grenadier to England. On conversing with a Jew, the captain sold it before he sailed for £18,000 sterling. The following year (1766) a Greek merchant offered it for sale at Amsterdam. The Russian consul residing there informed the Russian Government that such a stone was for sale, and in the hands of a Greek merchant, at Amsterdam. Prince Orloff immediately started for Holland, and was introduced to Mr. Gregory Suffras, the name of the Greek, when, after much treaty, he bought it for his sovereign, the Empress, for the sum, in gold, of 135,417 guineas.

#### 11th. THE RUSSIAN OVOID.

The second large diamond of Russia is called the Ovoid. It is in form and size of a hen's egg, or rather half of a hen's egg, latitudinally sliced from top to the bottom, and is cut en brilliant, and of the purest water;

1816. it weighs 193 carats, and is valued at £297,992. This diamond belonged to Nadir Shah, and was bought by a Russian merchant, who offered it for sale at St. Petersburg. After a long treaty a bargain was struck with the Russian merchant for £90,000 sterling, in cash, and an annuity of £4,000 per annum, and also a patent of nobility.

#### 12TH. THE RUSSIAN TABLE.

The Russian Table Diamond, which was purchased from a Persian merchant, is without a flaw, and weighs 68 carats. It adorns the grip of the dress sword of the Emperor Alexander, and is valued at £36,992 sterling.

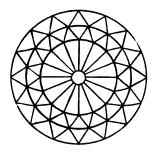
Although the King of Portugal and the Brazils is the present possessor of the most lucrative diamond mines in the world, situate at Serro do Frio, and other places in the Brazils, he only possesses three large diamonds, what are called crown diamonds. The two smallest are considered of the first water, and are perfect brilliants, without flaw or shuke. These, of course, are already cut and polished; the large one is in its rough natural state.

#### 13th. THE PORTUGAL BRILLIANT.

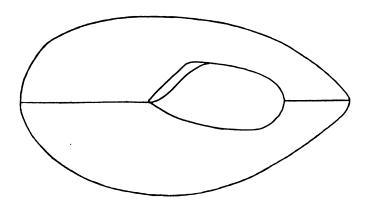
The large one that is cut and polished weighs 215 carats. This brilliant is valued at £369,800.

The smaller cut stone weighs near 60 carats, particularly thick for its spread, but cut as a brilliant of intense lustre, set in wrought gold, and in the top of the walking Brazilian cane of King John VI. This diamond is extremely deep *above* the bezel, allowing a kind of

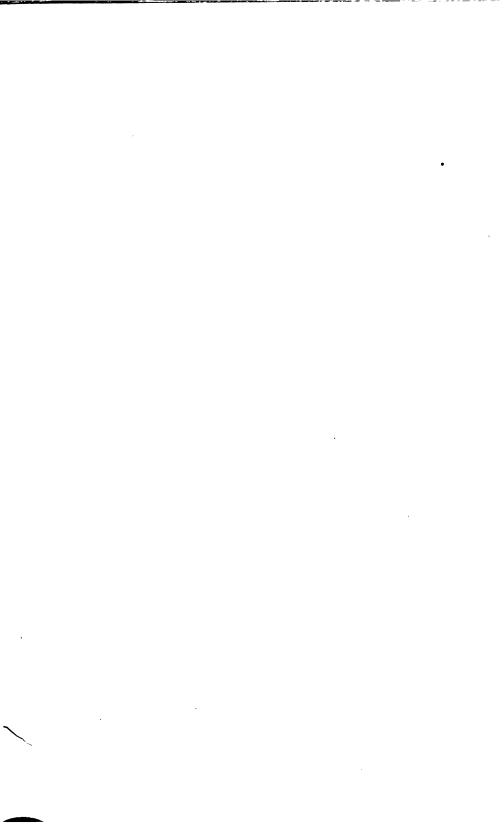
## The Brazilian or Portugal Brilliant.



# The Portugal Uncut Diamond.



 1 Carat	2	3	4	5	6
0	0	0	0	0	$\odot$



pyramid top, which allows a beautiful horizontal play of 1816. colour. It is valued at £30,000. I have no model of this stone.

#### 14TH. THE PORTUGAL UNCUT.

The large uncut diamond is in form amorphous, but still it assumes the polyhedral figure of two pyramids joined base to base. There is a piece chipped off the centre, which was done by the slave to try if it were a real diamond. Report says that it weighs 1680 carats; and, if a real diamond, would, according to the admitted table of calculation, be valued at £5,644,800. I believe that it was shewn to Lord Viscount Strangford, the English Ambassador at the Brazilian Court, but its being in a rough state, it would be difficult to decide its reality. It has rather a yellow tinge. The Portuguese Government refused to shew it to Mr. John Mawe, the mineralogist, who was at Rio with letters from the British Minister about the year 1806. Mr. Mawe doubts whether this stone may not be a white topaz.

### 15th. The Great Mogul Rose.

The Great Mogul of Hindostan possesses a diamond called the Mogul Rose, because it is cut as a rose diamond, flat at the back, and the top in facets rising to a point. This diamond being the weight of 279 carats, of an immense spread for its weight, therefore rather thin; it is allowed, however, to be the largest and finest rose diamond in the world. It is worn on state occasions as an armlet, and is valued at £380,000.

The Rajah of Mattan, in the Island of Borneo, is in possession of a diamond rather egg-shaped, and of the finest water, which weighs 367 carats. The Dutch Government, about thirty years ago, was desirous to obtain it, and sent Mr. Steward on a mission to the Rajah, with an offer; but the Rajah informed Mr. Steward that his subjects attach miraculous power to this diamond, by means of the water in which this diamond shall be dipped, and with it they believe the fortune of the reigning family is connected (it is valued at £538,756) therefore he would not, under all the circumstances, part with it for millions.

### 17TH. THE NASSAC.

The East India Company, in Leadenhall Street, are in possession of an uncut, yet plain polished, diamond, of a curious amorphous form. It was taken from the Pashwa of the Mahrattas, in the Mahratta war; its weight is nearly 90 carats, and report says is valued in their inventory at £30,000 only, in consequence of its irregular shape.

## 18th. The Blue Hope.

Mr. Elliason, the great diamond merchant, residing in London, in 1821 (the year of the coronation of George IV.), was possessed of a very fine oval diamond of a sky blue, and of intense brilliancy. It was cut and polished as a brilliant, and its play of colour was matchless. In spread it was two-thirds the size of the Piggot

diamond, being a little thinner, which the colour made 1816. up for; and it was of the same oval form. Report said that Mr. Elliason had visited the different courts in Europe, first asking £30,000, although it weighed only 271 carats, and of course, if it had been white, the usual colour of the diamond would only be valued at £6,050. Before he left the continent he came down to £20,000. but could not find a purchaser. George the IVth was desirous to have this diamond to ornament the belt of his plume of feathers at his coronation, on the 19th of July, 1821; a treaty was commenced to have the loan of this stone for three days. Mr. Elliason was verv adverse to lend any of his diamonds; the King's private exchequer or privy purse was too low to make the purchase, and an offer was made to Mr. Elliason of 1,000 guineas for the use of it for the day. Mr. Elliason required to have some days to consider it, when, in the meantime, Mr. Hope called upon Mr. Elliason about it, as he had frequently done in admiration of this beautiful gem; but Mr. Elliason always demanded too much. Hearing, however, that it was likely to be hired out for the occasion of the coronation, which circumstance of making it thus public would, in his feelings, much reduce its value, he observed to Mr. Elliason that he called upon him once more respecting the sky blue diamond; and after having stated that he found the King would not purchase it even for the approaching coronation, another opportunity might not occur for years, and he would make him a last offer, conducted, as report says, as follows: .-- Mr. Hope called for pen and ink, and filled up a cheque for 13,000 guineas, placed his watch upon the table, and said he would give Mr. Elliason, five minutes only, to determine to make up his mind, whe1816. ther to take up the cheque or the diamond. When the time arrived within a few seconds of the five minutes, Mr. Elliason pocketed the cheque, with much grumbling, declaring it more than "dog cheap." Mr. Hope placed the diamond in his splendid collection of minerals among the order of combustibles.

The King of Persia is possessed of six large diamonds, not one of which is thick enough to have been cut into a brilliant, nevertheless all of which are of the first water and brilliancy of their kind.

### 19th. The Mountain of Splendour.

The first, and most costly and beautiful, is rose cut, and round, and measures two inches in diameter. It weighs 135 carats, and is valued at £145,800. The Shah wears this for an armlet, upon the right arm, upon all state occasions, and it is called the Mountain of Splendour.

# 20th. THE SEA OF GLORY.

The second is an extraordinary formed diamond, and is termed a flat table, being one inch and seven-eights long, and one inch and three-eights wide, being a perfect parallelogram, the four sides bevelled both in front and back. It weighs 66 carats, and is valued at £34,848. The Shah wears this as an armlet on the left arm.

This form of diamond, I am informed, is not be met with in Europe, except one somewhat similar, as mentioned, in the Russian diamonds. I have been informed by an English Colonel, who is in the Persian service, that 1816. this flat diamond, which is there called the Sea of Glory, has an extrordinary prismatic display of colours and brilliancy, at the distance of 2,000 feet from the monarch.

#### 21st. Persian Rose

Is the third, and is a rose diamond. It weighs 45 carats, and is valued at £16,200.

#### 22nd. Persian Rose

Is the fourth, also a rose diamond. It weighs 46 carats, and is valued at £16,928.

#### 23rd. Persian Rose

Is the fifth, also a rose diamond. It weighs 48 carats, and is valued at £18,432.

# 24th. Persian Rose

Is the sixth, also a rose, and the smallest of them. It weighs 30 carats only, and is valued at £7,800.

The Shah wears these rose diamonds in his turban

# 25TH. THE YELLOW AUSTRIAN.

The Emperor of Austria possesses an oval rose-cut diamond, perfectly of a straw colour, clear, and weighs about 95 carats; but being of a yellow colour, it is only valued at £50,000. It is called the Yellow Austrian, and formerly the Maximilian.

1816. It will, no doubt, be asked how it happens that pure carbon crystallized, or what is called diamond, is so scarce, while its compounds, in different states, are so abundantly dispersed.

To dispel the astonishment of those who might consider this a ground of distrust, I shall remind them of the aluminous earth, which is likewise one of the commonest substances, and yet the adamantine (adamantine spar) is no less rare than the diamond, and is composed of alumine. We all are aware that iron exists everywhere, under every form, except in the state of purity—for the existence of native iron still remains doubtful.

The subject, when considered in all its connexions, is calculated to produce the most profound admiration, and serves to convince us of the unbounded comprehension of the *Divine* mind, which, in the act of creation, could foresee and appoint such important effects to result from the combination and changes of the most inodorous and insipid substances.

We learn, also, that all the works of the Creator are perfect, and perceive with astonishment that they are composed of elements which are, in *themselves*, incapable of destruction.

Indeed the wonder respecting the diamond consists only in the opposition between facts and opinions. It disappears in proportion as we discover and appropriate the power of Nature to produce the same effects.

The diamond mine of *Coloure*, the most famous and ancient of them all, to which I have frequently referred, is under the protection of the King of Golconda, and it was during his reign that many large diamonds were found, which had the effect of promoting such a spirit of speculation amongst men whose fortunes were adequate

to the employment of slaves, that a Portuguese gentle- 1816. man went to Golconda with his slaves to speculate his capital in searching and digging for diamonds, and spent in money 100,000 pagodas, and converted everything he had brought with him into money, even to his wardrobe; but he was monthly and daily unsuccessful, and whilst his slaves were at work in the mine for the last day's expense, he had prepared a cup of poison, resolved that if during that day his slaves should prove unsuccessful, and not find anything, he would drink his last with the conclusion of his money. Late in the evening, however, the slaves brought him a prodigious stone, weighing 795 carats, now the diamond of the Great Mogul. sequence, and in commemoration thereof, he caused a pillar to be erected at Golconda, with an inscription engraven upon it, in the Hindoo language, to the following effect, and which remains to be seen to this day:-

"Your wife and children sell, sell what you have, Spare not your clothes; nay, make yourself a slave, But money get, and to Coloure make haste, There search the mines, a prize you'll find at last."

In 1817, Matthew Wood, Esq., the Lord Mayor of 1817. London, did, by his humane and timely interference, save the lives of three unfortunate Irishmen, condemned to be hanged. His Lordship's perseverance was the theme of admiration throughout the country. I offered, at my own expense, to make a medal to record the humane act, and communicated my design to the Lord Mayor, for his approval. I received the following letter from Mr. Bates, his Lordship's Chaplain:—

1817. "Sir,

"I am instructed by the Right Hon. the Lord Mayor to acquaint you that he is truly sorry that Mr. White should have so long delayed answering the letter you previously wrote to him, the contents of which had been communicated to his Lordship; and as it may possibly forward the design you have kindly suggested, the Lord Mayor will, if necessary, transmit a profile likeness in bronze colour, by Myers, and a most excellent three-quarter mezzotinto engraving that has recently been published for the benefit of the three unfortunate Should either or both of the above be likely Irishmen. to answer your purpose, a line directed to his Lordship, acquainting him to what agent or house in London you would wish them to be sent, that they may be forwarded to you, shall immediately be attended to.

"I remain, Sir,

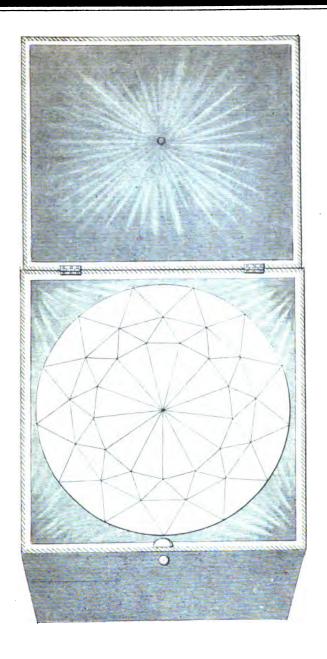
"Your most humble servant,

Spo: T. Bai

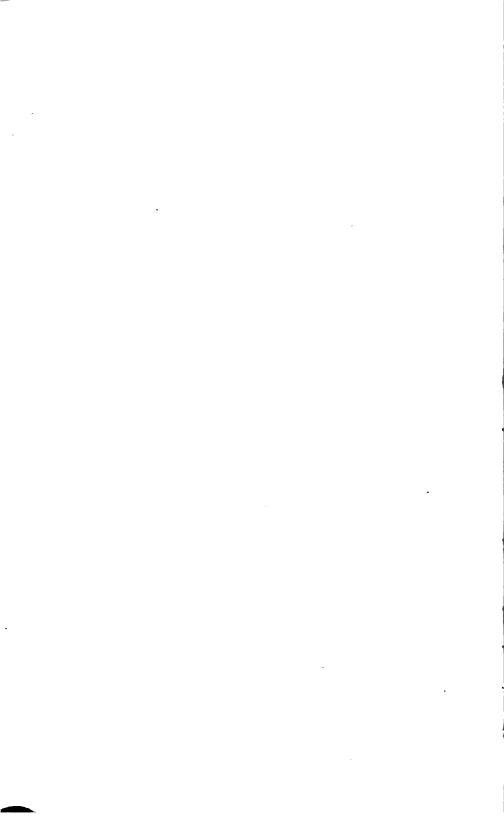
" Chaplain.

" Mansion House, 21st Jan., 1817."

At this period a Captain Mudie, who, I understood, had accompanied the army of the Duke of Wellington through Spain, called upon me to say that he intended to publish a series of medals commemorative of the late war, calling the series the "National Series;" that their number would be about 30 to 40; and as he was not a manufacturer of medals, he proposed that they should be made at my manufactory. I informed him that two things were essential for their success—a long purse, and



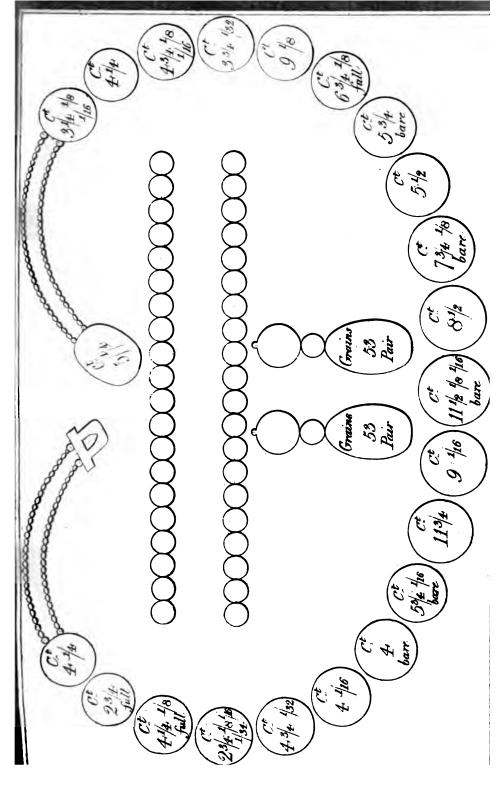
A Straw Colored transparent imitation Paste, but in the True Brilliant Style and supposed to be the largest and best executed known, done at the Author's Establishment.



a refined classical taste; and unless that was proved to 1817. me, I must decline the proposal, and continue my own ideas of a more confined series which I had already com-He replied that his esteemed friend, Sir menced. Charles Forbes, of Edinglaisse, Aberdeenshire, Scotland, would see him through the expense of the series; and, as to the second point, he assured me that the designs would be given to him by the Baron Denon, of Paris, in whose house his daughter resided as Governess of the Baron's children. I acquiesced in his proposal in that great work, and I permitted any of my best artists, die engravers, to give him any occasional assistance, there not being more than about five or six in this country, and it would take some years to complete the dies. was his intention to have all the reverse dies engraved at Paris, the whole of the French artists of this class being much at liberty. I doubted the policy of this mode, as the public would not think they were done by Englishmen. Captain Mudie did not see it in this light, and repaired to Paris, bringing over each die as completed, so that the series might proceed, and to be delivered as they came out. These medals are called the "National Medals of the late War." The dies cost Captain Mudie, according to the words of his petition to the House of Parliament, £10,000. He obtained a grant of land in New South Wales, where he went to reside; and I purchased the dies.

In June, in this year, a most singular and daring robbery took place in the day time at the establishment of Messrs. Rundell and Bridges, the King's jewellers, in Ludgate Hill, the whole being unique in adroitness and self-possession, and said to be unparalleled of its nature. I take the opportunity to record it here from this most wealthy and respectable house, and particularly as it may be a caution to the principal jewellers in Birmingham; and also as exhibiting, by the drawings of the diamond brilliant necklace, bracelets, and ear-rings, the character and style of such a splendid suite, with the weight marked on each circle of the quantity of carats that each stone weighed. It must, however, be borne in mind, that the circles are marked in the engraving LARGE, to admit the figures to be inserted of the weights. I believe the necklace was supposed to be valued at £15,000, and the ear-rings at 8,000 guineas; the whole were brilliants.

The manner in which the robbery was committed was as follows: -A foreigner, named Simon Bloum, accompanied by his interpreter, also a foreigner, stated to Messrs. Rundell and Bridges that he required a suite of brilliants for a marriage in the family (it was reported) of the King of Sardinia, and that he was prepared to pay for the same provided they could agree about the price. At length the whole of the articles required were selected; and it was agreed, upon the proposal of Simon Bloum, that they should be placed into a small box which he had brought with him, to be sealed with the respective seals of each party, and to be left until the following morning, when Mr. Simon Bloum was to call with the funds, and take the box away. The whole being carefully (in the presence of Messrs. Rundell) put into the box, a candle was brought with wax, that the seals might be attached, Simon Bloum, on sealing the box, dropped it, from the heat of the wax, and immediately all parties stooped, with every politeness, to pick it up. During this little confusion, and exchanges of





regret at the circumstance, Simon Bloum changed the 1817. box for one exactly similar, and already sealed. No suspicion was excited; but finding that the foreigners had left their Hotel without calling at Ludgate Hill, it was agreed on, after serious and long consultation, to unseal the box, when, to the great dismay of all present, nothing was found in the box but some trumpery jewellery of about the same weight. The noise that the same circumstance made in all the papers in Europe, and the size, figure, and dress of the parties being set forth, with a reward of 1,500 guineas for their discovery, led the police to be active in all countries, and the parties were ultimately found in France, and three-fourths of the property recovered. The following is a copy of the advertisement:—

"1,500 Guineas Reward.

"London, June 26, 1817.

"Whereas, a small paper box, containing a number of valuable jewels (particulars as stated below) was stolen, on Tuesday, the 17th instant, from a jeweller's shop in the City, by a person calling himself Mr. Simon Bloum, of Geneva, who, in company with another man acting in the capacity of an interpreter, selected them under pretence of purchasing for a foreign market. Whoever will apprehend the same Simon Bloum shall, on his conviction, receive the above reward by applying to Mr. Blackford, at Goldsmiths' Hall. The above mentioned Simon Bloum is a stout, well-made man, about five feet ten inches high, swarthy complexion, marked with the small pox, black curly hair, thick lips, and rather a flat nose; small gold wire ear-rings in his ears; converses in French, with somewhat of a German accent. Gave his address at the Huntley Coffee House, Leicester

1817. Square, where it appears he lodged only a few nights. In the Alien Office his address was entered No. 6, Duke's Place, Hounsditch. He obtained a passport for France at the above office some days before the robbery was committed. The interpreter is about five feet seven inches high, pale complexion; wore powder, large silver spectacles, black coat, blue pantaloons, and top-boots.

"The box contained—A necklace of 22 brilliants; a pair of bracelets of 40 brilliants; a pair of ear-rings, with tops and drops; another necklace of 40 brilliants; a pair of ear-rings; a pearl necklace of 36 very large pearls, weight 996 grains, with brilliant clasp; 31½ carats of loose brilliants; two rows of pearls, together 1,680 grains."

I mentioned the death of Mr. Boulton, of Soho, in 1809, and my having perfected a medal of him, the largest medal supposed extant. Although it was now above seven years since, and the medal had gone forth esteemed the largest, being somewhat upwards of four inches in diameter, the Danish Ambassador was rather annoyed at this generally received opinion, and produced one executed at the Danish Mint in honour of some naval victory in 1677, which was five inches in diameter. Consequently, I presented one to Sir Joseph Banks, President of the Royal Institution, and I received from him the following reply:—

"Soho Square, July 6th, 1817.

"Sir,

"I return to you my thanks for the medal of my much respected friend Mr. Boulton, and most fully applaud that feeling of gratitude which has induced you 1817. to make the sacrifice you have done to the memory of one of the best and most useful men that has appeared in my life time in any country in Europe.

"You are, however, under a mistake in supposing your medal to be the largest medal that has hitherto been struck. It is larger than the great Russian medal, the diameter of which is three inches and six-tenths, but the great Danish medal, struck in honour of a naval victory gained in the year 1677, is five inches, English, in diameter, being in size compared to yours as twenty-five to sixteen.

"I am, Sir,

"Your obliged and obedient humble Servant,

Jos: Banks

I applied to the Hon. Mr. Shirley, the private secretary of the Duke of Sussex, for the loan of a bust of him as the President of the Society of Arts. See his reply.

"Sir,

"I laid your letter before H. R. H. the Duke of Sussex yesterday, and am commanded by him to say he has no model or bust that he considers fit for the medal you intend to execute as a deserving compliment to him as promoter of the Arts; I am commanded to say that H. R. H. will shortly have one done by Mr. Chantrey, when you may have a cast; anything I can

1817. do to serve you or the town will ever be my most anxious wish.

"I am, Sir,
"Your obliged humble Servant,

Mhirley

"Park Street, July 9th, 1817."

In July, 1817, I gave a lecture at our Philosophical Institution upon the Cornish minerals; and Mr. John Taylor, hearing that I was not in possession of a specimen of the micaceous ore of Uranium, and of the rich cobalt ore from Tunaberg, in Sweden, very kindly presented me with them. See his letter.

"Stratford, Essex, 17th July, 1817.

"Mr. Taylor presents his compliments to Mr. Thomason, and he sends him a specimen of the micaceous ore of Uranium, which has but lately been found in Cornwall, and is in but few hands; he likewise encloses a sample of the rich cobalt ores from Tunaberg, in Sweden. He begs to add his best respects."

The following is a letter from Mr. Coutts Trotter:-

"Strand, London, 3d Oct., 1817.

"Dear Sir,

"The obliging attention you lately shewed me at Birmingham encourages me to enclose you an extract from a letter written to Mr. Coutts by a very amiable friend of his, the Comte de Grave. The object of it is to procure for the bearer of this, who is a man of 1817. science, some information as to the manufactories of this country. I know not how far we think it right to keep a knowledge of these secret—if they are so kept. I feel the propriety of the regulation, but if there are any that are not, perhaps you will allow Mr. Merisnel to see them; and, at all events, I hope I may solicit for him the pleasure of conversing with you on subjects of which you are so great a judge.

"I am, dear Sir,
"Your most obedient humble servant,

Coutts Troper

Just at this time there was discovered, at Paris, a novel metallic substance, called the *moiré metallique*, or silk metal. I had seen a specimen in the hands of a foreign Prince, and knowing that Dr. Hamel, the celebrated Russian, was in Paris, I informed him that I could not discover the mode of making it, nor any one else, in England, that I had heard of; and that as he was at Paris seeking any novelty in chemistry, I would not mind a trifle to be informed of the secret. See his reply.

" Paris, 10th Dec., 1817.

" Dear Sir,

"I have some days ago received your letter of the 30th ult. M. Thierry, chymist, who had offered the secret of making the *moiré metallique*, and given me the specimens which I sent you (which were not well varnished), asked 6000 francs for the commu-

1817. nication. I have, however, obtained it through another channel for a much less sum, and am happy to communicate it to you.

"The thing is very simple. The figures we admire so much exist in every tin, where they are formed during the process of tinning the sheet iron. look at the plate of tin obliquely, you will perceive an indication of figures. It is only necessary to remove the pellicula which covers them, and this is done by means of an acid, and for this purpose a weak aqua regis is the best. The person who sold me the process gave me the following receipt: - Decrepitated muriate of soda, one pound; distilled water, four pounds; aqua regis, four pounds; nitric acid, six ounces. But this is a foolish mixture, and, it seems, purposely made complicated, in order to appear the more curious. You will see at once . that it is nothing more nor less than aqua regis. Common aquafort, with a little culinary salt, answers all the purposes. I have even found that the other mineral acids answer. To do the thing, the plate is first cleansed, by means of whiting, from grease and other impurities, then laid on a table, and the acid rubbed on by means of cotton, or something like it, when the figures begin instantly to appear, and in a little time become very distinct, when the plate is plunged into water to wash off the acid. The first varnish is then laid on as soon as possible, to keep off the air, in order to preserve the brilliancy, and then it is worked into the shape wanted, and the finished article receives the latter coats of varnish, which may be of any desired colour.

"Not every tin has equally good figures; they prefer here the English, and particularly that marked Pontypool, I believe. The French has but bad figures. But even the best English tin gives only the large figures, as 1817. you saw in the specimen which I had in Birmingham. There is now a new method to make a moiré with small and beautiful figures, stars, &c. This is done by heating the plate to such a degree that the tin melts, and then by allowing it to cool more slowly or suddenly it crystallizes into a variety of beautiful little figures, which appear only after the acid has removed the pellicula. Stars and other figures are produced by approaching the tin with a hot iron from underneath, so that the tin melts in certain parts, and crystalizes anew in cooling, which becomes visible after the process of cooling.

"Here, then, you have the whole secret at once, which has cost me a great deal of trouble, and occasioned a very considerable expense. I, therefore, beg you will allow me to draw on you for £10 or £15 at least, or send ' me in your next a bill on some one here to that amount; when you make the moiré en grand, you will then, perhaps, allow me something more. I am sure you will make thousands by it, because the thing is just in your line. Besides lamps, they make here now all sorts of nick-nack things, ladies' work-boxes, tobaccoboxes, souvenirs, candlesticks, and an infinite variety of other things. If you choose, I can send you specimens by couriers to London. For the small things, the new moiré, prepared by heating the plates previously, either wholly or partly, serves generally for lamps; the other. might be called natural. For you the prepared might be the most interesting; and it is to be questioned whether this process was known to the people who took the patent for England, and, at any rate, their patent cannot be made valid, as specimens of the natural moiré

1817. were sold in the shops of London (in the shape of Maelzel's time-measurer for music) as long ago as last year. I advise you to set about making it immediately, and I will send you any further details you may wish. Mr. Allard makes an enormous deal of money. plate of tin, worth twelve or thirteen sous, he sells for six or seven francs. A small souvenir sells for forty or fifty francs in the Palais Royal. These are made with the small figured moiré. Shall I send you some as pat-I forgot to say, that there is a way of making a different moiré still, which resembles granite. This is done by hammering the plate of tin before the operation with the acid, which breaks the figures in small square and otherwise shaped particles. Excuse the haste in which I have written this letter for want of time, and be assured that I shall always be ready to serve you in whatever lays in my power.

"Believe me, dear Sir,

"Yours truly,

"P.S. I was thinking of making the process known to some learned society in London, but shall wait your letter, whether you have no objection."

In December, I completed the medal of Alderman Wood, as mentioned in June last, as complimentary to, and highly honourable of, his exertions in saving the lives of three unfortunate Irishmen who were condemned to be hanged.

The Obverse of the medal is a fine likeness of the Alderman in his robes of state as Lord Mayor. The

Legend—The Hon. M. Wood, twice Lord Mayor of 1817. London, MDCCCXVII. and MDCCCXVII.

On the Reverse—The figure of Britannia, resting with one hand upon the shield of Justice, ready to perform the act, but, tempered with Mercy, listens to a figure imploring to be heard, whilst another figure unmasks the conspiracy. Legend.—Indigence relieved; innocence protected; conspiracy defeated. In the Exergue—"The cause which he knew not he searched out."—Job.

This year I had the honour to be elected the High Bailiff of Birmingham. See the following letter:—

Manhaiges presents his 1818.

best compliments to the High Bailiff of Birmingham, and begs to inform him that the address to the Prince Regent, on the occasion of her late Majesty the Queen's death, has been, or will be, presented through Lord Sidmouth, which is considered the most delicate and respectful mode in an event so melancholy and distressing to the family of the Prince. The Lord Mayor just now informs Alderman Bridges that the city of Oxford, which has especial privileges on these occasions, likewise adopts the same mode of presenting their address.

"London, 4th Jan., 1818."

"Whitehall 6th March, 1818.

"Sir,

"I am directed by Lord Sidmouth to acknowledge the receipt of your letter of the 4th instant, inclosing one from an anonymous writer dated from Saint 1818. Etienne, in France, giving information that an attempt is now making to entice artificers from this country to carry on some works in the neighbourhood of that town for the manufacture of steel; and I am to acquaint you that his Lordship has thought it right to transmit the same for the information of the Lords of the Committee of Council for Trade.

"I am, Sir,

"Your obedient, humble servant,

"Mr. Edward Thomason, Birmingham."

"T. WALKER presumes that it will scarcely be necessary to do more than mention the names of Mr. Raikes, of St. Petersburg, and Mr. Thornton, of London, to command Mr. Thomason's attention. T. W. will only add, that anything in which he can gratify their curiosity will be deemed an obligation by Mr. Boulton, as well as himself.

"Birmingham, Friday Evening, 18th April, 1818. "Edward Thomason, Esq."

"Soho Square, 12th June, 1818.

"Dear Sir.

"The Baron de Landesberg, exceedingly desirous of viewing the wonders of Birmingham, accompanied by the Prince de Lippe, has requested to be introduced to you, of whose works and polite attention to myself I have had occasion warmly to mention to him.

Permit me to present them to your notice, and to request 1818. that you will have the goodness to shew them your establishment, and, if I might add, to afford facilities to their further gratification in viewing Soho, the Proof House, the boring and nail manufactories, &c.

"I ought not, nor can I thus intrude on your good nature and valuable time without apologizing for a liberty which could only be induced from a desire to do towards these strangers as you have done to me under similar circumstances.

"I have called on my friend Sir Isaac Coffin, in the hope of his introducing these gentlemen to Mr. Watt, but unfortunately he has quitted London to secure his election in the country.

"Mrs. Trotter joins me in best compliments to Mrs. Thomason and yourself, and

"I am, dear Sir,
"Truly yours,

John Trotter

In the beginning of this year, Dr. Brewster entrusted his newly invented kaliediscope in the hands of a Birmingham manufacturer to make him one or two to look at, and consider what may be done with it. He informed me that he went to Mr. Watt, of Soho, to ask of him to recommend to him a manufacturer likely to make them, when Mr. Watt mentioned Mr. Bingley. Now Mr. Bingley's manufactory was quite of a different cast, viz., the making of patent steel edge scythes and axes, and such like articles.

Mr. Bingley kept it by him many weeks, and then wrote him that it being out of his line he had given

given the model to his neighbour, Mr. Carpenter, a 1818 working optician. Mr. Carpenter, perceiving the probability of a great sale of them, agreed with Dr. Brewster. Some misunderstanding arose, when Dr. Brewster was desirous that I should take it up. clearly perceived that the invention would be the fashion of only a moon, and, in fact, some persons were privately making them at the moment. I therefore declined Dr. Brewster's proposal. If the Doctor had brought the invention first to myself, and proved that it was only known to himself, I would have ventured to have made 10,000 before any were introduced, and such would have been the demand for the novelty that the whole would have sold in one week for an enormous profit. I am convinced that Dr. Brewster might have made many thousand pounds, in the short period of a few months, had the thing been properly managed; but I believe that he did not reap a tithe of the profit his invention merited.

"Sir,

"I am this moment favoured with your letter of the 16th June; and I suspect that you must have either misunderstood Mr. Carpenter, or, what I trust is not the case, that Mr. Carpenter may have unintentionally misled you. The kaliediscopes which I offered you the licence of making are by no means the inferior instruments; and in proof of this it will be sufficient to state that Mr. Bate, of London, has made all those which he has manufactured without a lens and draw tube, and his are among the best and most expensive instruments that have been manufactured. With a stand and box they sell at £6:16s.6d. In like manner, Mr. Dolland made several very fine instruments, without a lens and

draw tube, and most of the London opticians do the 1818 same. It is quite true that when the instrument has a lens and draw tube it is more complete than without it; but the great body of purchasers are entirely ignorant of this advantage, and many who are acquainted with it do not estimate it sufficiently. My offer to you, therefore, includes the very best instruments, with boxes, with stands, with any number of objects, but with the exception only of the lens. Even this exception it will be in my power to remove, if Mr. Carpenter shall not fulfil his obligation to supply the public with that kind of instrument.

"Your great respectability, the extent of your establishment, and the means you enjoy above all others of getting up the instrument in the most elegant manner, makes it very desirable for me that you should accept of my offer, and, when I consider the enormous demand for the instrument, I have no doubt that it may be an object to yourself as well as to me to undertake the manufacture. Events may occur which may enable me to throw a still greater part of the manufacture into your hands; for I am satisfied that Mr. Carpenter has not an establishment which will enable him to fulfil the obligation which he has come under to me.

"I am, Sir,

"You most obedient humble servant,

Jand Brewter

"Melville Street, June 20th, 1818."

"Sir,

"On the 28th of July a cast of Mr. Watt's bust was sent to you by order of his son, and neither he

1818. nor myself having received any acknowledgment of its arrival, I beg to enquire whether it has come safe to hand.

"I am, Sir,
"Your very obedient servant,

"Belgrave Place, 9th August, 1818."

At this time I made a faithful copy of the celebrated Portland vase, in silver gilt, beautifully embossed.

In 1818, I was given the opportunity to examine the celebrated Portland Cinery vase, which is at the British Museum.

The story of this vase was, that it was manufactured before the Christian era, but at what period, and by whom, it was unknown; but it was said that it belonged to the family of De Medicis, and at the sale of a portion of the property of that house the Duchess of Portland bought it at, or nearly, the enormous sum of £5000 out of her own property.

At the death of the Duchess (I believe about the year 1794) she had desired, by her will, that all her effects should be sold by auction. At this sale the Duke attended to buy in this celebrated vase, when, to his Grace's surprise, some gentleman bid against him, running it up to 1000 guineas. The Duke hearing that the person was Mr. Wedgwood, porcelain manufacturer, at Etruria, in Staffordshire, became indignant, and sent one of his friends to him across the auction room, to inform him that he should purchase it at any price; Mr.







THE PORTLAND VASE, NOW IN THE BRITISH MUSEUM.

Wedgwood sent word that he attended for the same end. 1818. This reply puzzled the Duke, but a friend near him said, "All Wedgwood wants is to take copies of it on his ware. If your Grace would permit me to tell him that you would lend it him to take a certain number of copies, I make no doubt he would stop bidding." He did so, and on condition that he might make six.

The vase is a most singular and extraordinary work of art—the most so of any thing of the kind which I have seen of its character and style.

In the first place, the artist at that period had the aptitude first to blow in purple glass a beautiful form of a vase, with handles attached; even so far, this is considered in our day a masterpiece of skill at our best glass houses. Secondly, with the oxide of tin, forming an opaque white glass, the artist managed to cover the whole of the purple vase with this white opaque glass, and at least to the thickness of a quarter of an inch! The artist then, in the manner of cutting a cameo upon the onyx stone, cut the opaque glass away, leaving the white figures and allegory embossed upon the purple.

This so much astonished me, and also Mr. Biddle, of the Birmingham Heath Glass Works, that we made many trials to accomplish this art, but all to no purpose. The clever workmen did succeed in blowing the classical vase in contour, and in attaching to it a pair of handles, but we could not succeed in covering the vase with the white opaque glass, the degree of temperature essential to form the liquid white glass induced the white opaque, at the instant an attempt was made to put it on or surround the purple, to force the purple to give way from the heat, and to crack it in endless striæ, and crush it into a chaos

1818. of confusion. The Portland Vase thus exhibits one instance of superior skill by the ancients.

Much has been attempted to explain the allegory of this cinery vase, respecting which there is a diversity of opinion. I have heard much argument about the meaning of the subject; I confess myself to agree with the following analyzation, which is said to be that of the celebrated Dr. Darwin, M.D.:—

"THE MORTALITY OF THE BODY.—The central figure appears emblematic of mortal life; the inverted torch, or rather the expiring torch, shews the figure to be emblematic.

"The male and the female on each side of the dying figure must be considered as emblems of human kind, with their backs towards the dying figure of mortal life, unwilling to associate with her, yet turning attentively their countenances towards her, and sorry to contemplate their latter end.

"Second Compartment—Emblem of Immortality.
—The habitations of ghosts after death were supposed by the ancients to be placed beneath the earth, where Pluto reigned, and dispensed rewards or punishments.

"The first figure is a ghost, who, having passed through an open portal, is descending into a gloomy region with an unsteady step, feeling, as it were, his way. The ghost appears fearful, and wishes to drag after him part of his mortal garment, which, however, adheres to the side of the portal.

"The ghost is received by a beautiful female—a symbol of immortal life, evinced by her fondling a playful serpent, which, from its annually renewing its external skin, has, from great antiquity, been esteemed the emblem of renovated youth. For a similar purpose a serpent was

wrapt round the egg as an emblem of a renewal of life 1818. from a state of death.

"The serpent shows this figure to be an emblem, as the torch showed the central figure in the other compartment to be an emblem; hence they correspond, the one representing mortal life, the other immortal life.

"This figure of immortal life sits down towards the figure of Pluto, but turns her face towards the timid ghost, and stretches forth her hand, taking hold of his elbow, supports him and encourages him to advance; at the same time the ghost lays his hand upon her arm, as one walking in the dark would naturally do; while the general part of the symbol of *immortal life* being turned toward the figure of Pluto, shews that she is leading the phantom to his realms. The God of Love lights the ghost with his torch, and beckons him to advance to the realms of Pluto."

### "Dear Sir,

"I have given a letter of introduction to the gentlemen composing the suite of his Imperial Highness the Archduke Maximilian of Austria, who will, I expect, be at Birmingham on Thursday or Friday.

"The Archduke travels incognito, under the title of Count Novellara, and I have assured him that he may depend on you, not only to shew him everything in your most valuable manufactory, but that you will assist him in procuring admission to all others worth seeing, among which I have specified the papier maché, the nail manufactory, the whip ditto, the casting and colouring brass ornaments, the proof house, &c.

"I have not forgotten your wishes respecting the

1818. Russian Consulate, and I doubt not of arranging that matter agreeably to your wishes.

"I am, Sir,

"Your most obedient servant,

Manfengrere

"Carlton House, 12th Oct., 1818.

"E. Thomason, Esq., Birmingham."

"Dear Sir,

"I am exceedingly obliged by your letter, and by the trouble you have taken, and am anxious to know when you are likely to be in town. The object concerning which I have written to you is connected with a great 'national question,' in which I am convinced you would not only feel a pride in lending your best aid, but which might ultimately become advantageous to you.

"I am, dear Sir,

"Yours truly,

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"13, Cecil Street, 23d Nov., 1818."

At this period it was generally reported that the Bank of England was much alarmed at the high price to which the gold coin had risen comparatively to the Bank of England one pound note. Sir William Congreve frequently met the Bank Directors to know if any substitute 1818. for the guinea could be managed—in fact, to make a gold piece the size of a guinea, but only the weight of a half one, to prevent the coin being either sent out of the kingdom or melted down. He sent me the following letter, containing some extraordinary ideas of perfecting it:—

"13, Cecil Street, 14th November, 1818.

"Dear Sir,

"I have conceived that a coin might be struck in steel (heated for the purpose, and afterwards hardened) having such complicated figures upon it that if a precise counter-part of it were sunk in the same way on a pair of steel rollers in close contact, by passing the steel coin through them when sufficiently heated, no imitation or counterfeit of that coin could be made from a different die that would pass through this counter impression of the original die on the rollers, upon the principle of a lock and key of the most complicated wards; the figures on the coin being made expressly for this view, and the raised work of the coin being so fine and small that it should be impossible to make anything smaller or finer to pass, like a skeleton key, without making the counterfeit so much thinner than the original that would be visible when compared with the original; or that, at all events, when weighed the loss of weight from this reduction of thickness must be manifest. other words, is it not possible to make two such coins from different dies that shall be mathematically similar; or rather that there shall be such a difference between them that it may be thus ascertained?

"I know no person who can give me such accurate

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1818. information on this point as yourself, and you will very much oblige me by giving me your opinion between this and Thursday next.

"For my own part, I do conceive that it would not be possible to imitate it so accurately as to avoid this mode of detection.

"Yours very truly,

"I have received a letter from the Archduke Maximilian, who speaks much of your attention to him.

"If there was any chance of your coming to London, I should like much to converse with you on this subject."

I answered him that I could conceive no other plan to come at what he required than to make a gold coin the exact style of our present guinea, and the field of the arms and letters cut out or pierced through the two sides in such a way that exactly one half might be pierced out with some fine piercing tools, &c., without disturbing the allegory or letters; and that I would set about the die and tools, and send him one in a fortnight. I kept my word. He (Sir William) was delighted with it. I, however, anticipated the result—"that John Bull would not be duped." It so turned out, after much consideration by the Bank Directors. Sir William, however, said that he showed the piece to the Prince Regent, who laughed most heartily, and remarked, "Sir William, you must try again, for nothing will induce my subjects to fancy that ten shillings and sixpence will look like a guinea,

unless they are all simultaneously filled with Champagne 1818 and Burgundy!"



"Carlton House, 12th October, 1818.

"Sir,

"Any attention you can shew the Archduke Maximilian, of Austria, who travels incognito, under the title of Count Novellara, will be acceptable to the Government. I have, therefore, to request, that you will not only have the goodness to show him every thing in your admirable manufactory, but that you will put his Imperial Highness in the way of seeing whatever else may be curious at Birmingham, particularly the nail manufactory, the japan ware, papier machée, the whip manufactory, the grinding of musket barrels on the stone, the proof house, the casting and colouring ornamental brass work, and any other object you would recommend.

"Your particular attention to his Highness will exceedingly oblige me.

"I am Sir,

"Your most obedient servant,

Manfongrere

I was at this year the High Bailiff of the town of Birmingham; and on the 17th of November the virtuous Queen Charlotte died. A general meeting was held by the inhabitants upon an address of condolence to the Prince Regent. After the meeting I had to communicate with our county M.P., Mr. D. S. Dugdale. See his reply.

"Merevale Hall, Dec. 16th, 1818.

"Dear Sir,

"I received the honour of your letter last night, communicating the result of the meeting of the town of Birmingham, upon an address of condolence. As the post will have afforded Sir Charles Mordaunt a much earlier opportunity of addressing Lord Sidmouth upon the mode of presenting the address, I do not attempt to trouble his Lordship, knowing that a duplicate upon the subject cannot avail. I have therefore written to Sir Charles Mordaunt, desiring he will inform me the result of his communication with Lord Sidmouth, and I can assure you, it will give me the greatest pleasure in attending you to the Levee, or in any other manner which may be thought most desirable.

"I have the honour to be,

"Your obedient humble servant,

"To the High Bailiff of Birmingham, Edward Thomason, Esq."



The Author's Dwelling House, situate on that side of St. Phillip's Square, called Colmore Row.



"London, Jan. 12th, 1819.

1819.

the Suke Hellengton

presents his compliments to Mr. Thomason, and begs leave to return his best thanks for the series of medals which he has had the kindness to send to him."

#### "Dear Sir,

"I beg to present you with a copy of two papers I have printed for the use of my lectures here, and shall be much gratified if they prove in any degree interesting to you. I beg my respectful compliments to Mrs. Thomason, and remain

"Your obedient servant,

"Oxford, Jan. 16, 1819."

In November, on my road to Chester, I sent on a letter to the Earl of Grosvenor, to ask permission to see Eaton Hall. His Lordship's horses were at the door, but he condescended to stop a few minutes, and point out some works of art in the Hall, and was so kind as to order his steward to show me the whole of the noble gothic mansion; and, as the steward informed me that his Lordship seemed desirous that I should state my opinion, should any improvement suggest itself to me, I sent some designs which I thought would be appropriate to one of the rooms, which brought the following letter:

1819.

"Grosvenor House, Feb. 2, 1819.

"Sir,

"I am much obliged to you for a view of your designs, which are certainly handsome. I hope to be able to call on you in the summer, at Birmingham, and am, Sir,

"Your obedient servant,

Janouer

"Manchester Square, 20th March, 1819.

ments to the High Bailiff of Birmingham. He is honored with their commands in regard to the Insolvent Act, and will take care to present their petition before the proposed new Act can reach the House of Lords.

"To Edward Thomason, Esq., High Bailiff of Birmingham."

Thomason to permit Monsieur Hachette, of the Royal Academie des Sciences at Paris, and his friend, Mons. Acile, to see his show-rooms, and so much of his manufactory as may be agreeable to Mr. Thomason. These gentlemen were recommended by Mr. Berthollet, and Mr. De Prony.

"Heathfield, April 13th, 1819."

In May, his Royal Highness the Grand Duke Michael 1819. of Russia visited Birmingham. I accompanied him over mine, and the principal establishments in Birmingham. During the passing through my manufactory, my workmen in the glass-cutting room were grinding an extraordinary service of cut glass to be ornamented with silver foliage, &c. His Imperial Highness requested that I would manufacture for him a large service, adapted for thirty-six persons, which was the cause of the following letter from Count Moggruffill, Secretary to Count de Lieven:—

## "London, the 25th of June, 1819.

"Sir.

"As a Russian frigate, which is expected to arrive very shortly in England, will sail afterwards immediately for St. Petersburgh, I have determined on sending by this excellent opportunity his Imperial Highness the Grand Duke Michael's service. I must beg you, therefore, to have it sent without the least loss of time, and by the safest conveyance, to London, where I shall inspect it, and pay the amount of it to such of your correspondents here as you will point out to me.

"I remain,

"Yours, &c. &c.

Secretary to Count Lieven.

"Edward Thomason, Esq., Birmingham."

1819. His Imperial Highness felt much interest in looking ever the establishments for the manufacture of guns and swords, and implements of war, particularly the method of proving one hundred and fifty gun-barrels at once, and partly by mechanical contrivance, without the least danger attending the process. At the sword manufactory he expressed his wonder at the elasticity of our sword blades, as the mode of proving them admitted of no mistake, the point of the blade being fastened to one end of a powerful steel roller, the movement of the winch made two-thirds of the remaining part coil round the roller, which, at a certain period, was instantly released, when the blade recovered its straight horizontal position; and all blades that did not stand this trial were thrown aside.

Mr. John Mawe, author of the Mineralogy of Derbyshire, and the only Englishman who had ever been permitted to visit the gold and diamond districts in the interior of the Brazils, paid me a visit this year, when I accompanied him through the highest cast of the establishments. We had much conversation upon the different gems, their locality, their hardness, lustre, and the polyhedral figures which they generally assumed. He stated his great disappointment on visiting the diamond mines of Serro do Frio. Although he brought letters of introduction from the English Government, and seconded by the strongest recommendations of Lord Strangford, there appeared some jealousy in permitting him to inspect the mines, and he was almost pinioned between two gend'armes, who were appointed to accompany and protect him on his journey. Although they tried to shew every degree of courtesy, yet Mr. Mawe. said he could perceive that they had orders to keep him

from looking right and left. He was shewn what was 1819. called the treasury, where the diamonds were brought from the different stations, and in the many drawers which were opened for his rapid inspection, he said he did not recognize scarce any exceeding in weight 5 carats; and he understood from the governor that the average quantity was estimated at 25,000 carats. He said he was much more gratified with the cubes of gold which were shewn him; they were perfect. He contrived to purchase a few specimens, but was unable to obtain one diamond.

On our inspecting the papier machée establishment of Messrs. Jennens and Betteridge, we had much conversation on the mode by which the Japanese inserted pieces of pearl in their japan, a process which had never been done in England. We both agreed that, examining very closely a real japan specimen, the art might surely be discovered; hence the cause of his presenting Mrs. Thomason with a real japan basket, as his letter indicates, and from this being placed in the hands of Jennens and Betteridge for some time, the discovery of the mode of inserting pearl shell in papier machée was found out.

## "London, August 19th, 1819.

#### "Dear Sir,

"I arrived at home a few days ago, having been into Cornwall. Permit me to take the earliest opportunity of returning you my best thanks for your kind attention at Birmingham, and allow me to beg the favour of your lady's acceptance of a piece of Japan ware from that island, and brought to me by a friend in the Russian expedition; the inlaying will please you. 1819. "Please to accept, yourself, two pieces of corrundum; the brown is diamond spar.

"I have the honour to be, Sir,
"Your much obliged,

mare

"Edward Thomason, Esq., Birmingham."

At this period I was honoured with an order from the Duke of Northumberland, to manufacture for his Grace a silver plateau, thirty-three feet in length. The elevated edge or border was of the highest classical taste, and, as I was informed, designed by the Duchess; it was adapted for the long dining-room at Alnwick Castle, and I was highly gratified on receiving the following letter from the Duke:—

"Alnwick Castle, 24th Aug., 1819.

"Sir,

"I have been prevented taking an earlier opportunity of acknowledging the safe arrival of the plateau, which has been very much admired for its appearance as well as for its execution.

"I am, Sir,

"Your obedient servant,

"E. Thomason, Esq., Church street, Birmingham."

At this period there was discovered at Paris a few medals, the dies of which were secretly executed in the year 1804, the period that the Emperor Bonaparte ordered 2000 small vessels to be built at Bolougne, with the intention, as he stated by a decree, of conveying his

army to make a conquest of England. On the obverse 1819. of the medal was a fine head of Bonaparte. Signed NAPOLEON. EMP. ET. ROI. DENON. DIREXT. And the allegorical subject of the reverse-Antæus vanquished by Hercules. Antæus, the enormous giant, called "Son of the Earth," wrestled with Hercules, and Hercules perceiving, after thrice throwing down this giant, that he derived new strength as oft as he touched the earth, lifts him in his arms and prevents him from touching the ground, keeping him ready to dispatch him. represents France, and Antæus, England. And on the exerge-DESCENTE. EN. ANGLETERRE. FRAPPE. A. LONDRES. EN. 1804. Denon held these dies in secret during the period the flotilla and the French army were at Boulogne, ready, in the event of success in conquering this country, to strike off the medals at the royal mint in France, and issue them as if struck off at the royal mint in London.

This formidable and boasted expedition being abandoned, Denon secreted the dies and about half a dozen of the medals in the wall of his house, the public being ignorant of there ever having been such a medal extant, until after Denon's death, when the discovery was made, and three of them presented to the Spanish General Alava, who always accompanied the Duke of Wellington through Spain. The General presented one to the Duke, who considered it an excellent opportunity to exhibit the presumption of Bonaparte. Hence the letter of Sir Neil Campbell to me. I succeeded in making an exact copy of the original, so much so, that it was difficult to discern the bronze medal from my dies from the original French medal.

1819.

"Sir,

"Birmingham, Sept., 1819.

"My address during a few weeks will be at Edinburgh. After that it will be in London, at the United Service Club, Charles-street, where I shall be happy to hear from you in case you wish to have the medal which

is in my possession sent to you.

"I received it from Colonel Minnaci, A. D. C. to General Alava, a Spanish officer, who has always accompanied the Duke of Wellington, and now Minister at the Hague. Col. M. informed me that the mould from which my medal was cast is in possession of a person employed by the Government at Paris, and I think he belongs to the mint. In course of the different changes it has been preserved with great secrecy. The medals were to have been cast at Paris before the invasion, and, in case of success, to have been immediately circulated.

"I regret much to have been able to command so little time to profit by your attentions this day, and remain,

" Sir,

"Your most obedient servant,

il bam Abell

"There is no doubt that Bonaparte was serious in the intention of attempting to invade England in 1805, and this medal corroborates it."

The Prince Regent was at this time on a visit to the Earl of Warwick, at Warwick Castle; a party of gentlemen met at the Royal Hotel desirous that his Royal Highness should inspect the principal establishments in Birmingham. A letter was couched in respectful and

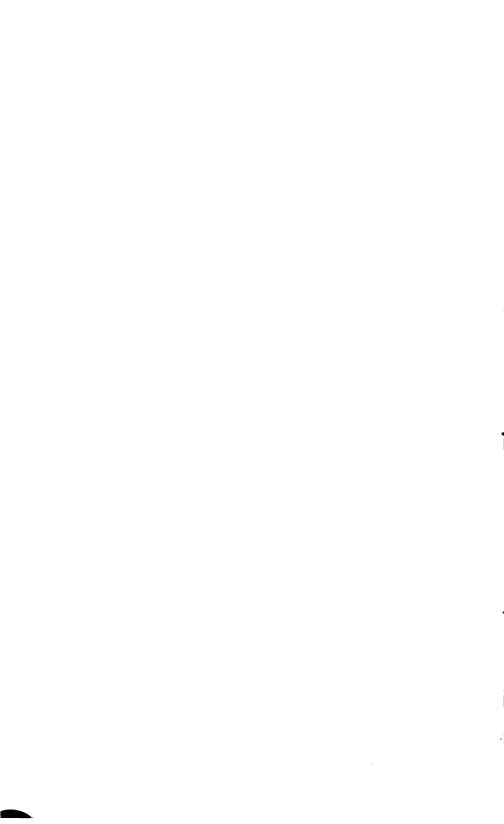
Obverse,



Reverse.



The empty boast of Buonaparte, in the Year 1804.



loyal terms to invite his Royal Highness, and, for dispatch, I sent my servant over with the letter, addressed to Sir Benjamin Bloomfield, the then private secretary to the Prince. Hence the following reply:—

Li B. Bloomfile 's

compliments to Mr. Thomason, and informs him, that the Prince Regent's return to London being hastened, it will not be in his Royal Highness's power to inspect the various manufactories of Birmingham upon the present occasion; but his Royal Highness, feeling a deep interest in the establishments of that place, proposes to avail himself of the earliest practicable opportunity of visiting that great and important depôt of ingenuity.

"Warwick Castle, Sept. 12th, 1819."

"Pin Manufactory, Monday morning, "Oct. 11th, 1819.

"S. THORPE will feel much gratification in conducting the Prince de Coburg through the pin manufactory, should his Serene Highness be disposed to honour it with a visit.

"Mr. Thomason, Manufactory, Church-street."

At this period the bed of one of the iron furnaces at the extensive works of Messrs. Batfield, at the Old Park Iron Works, Sbropshire, was being renewed, when a mass of columnar structure, in crystallized deposit, was found under the bed, in bundles of four and five sided columns. It was supposed that the whinstone, partially attendant on the iron stone, had insinuated itself into a 1819. hollow receptacle under the bed. I happened to be there at the period, and obtained some specimens of it, perceiving it to be an excellent proof of the *Plutonean system*; and knowing the anxiety of the Duke of North-umberland to be informed of any new discovery relating to science, I presented the Duke with the best marked specimen.

#### "Alnwick Castle, 10th Nov., 1819.

"Sir,

"I have shewn the specimen of the artificial columnar structure, which you sent me from Birmingham, to Dr. Mac Culloch, who is particularly anxious to know every thing that can throw any light on its formation. I will, therefore, thank you to inform me out of what furnace it was taken; for what purposes the furnace had been used; in what situation it was found; of what the mass is probably composed, as it seems principally to consist of sand and with but a small portion of slag; also how long the mass had remained undisturbed to produce this singular columnar structure.

"It might be worth while, if you have an opportunity, of examining some other large furnaces, when they are cleaned out, to see whether the same phenomenon is to be observed.

"If you are able to send me any further information on this subject, it will oblige,

"Sir,

"Your obedient servant,

Northumberland





Presented to the Author by the Prussian Minister of Commerce.
with many others from the Prussian Mint.

.

"London, 25th November, 1819.

1819.

"Dear Sir,

"I have received your letter of 17th inst. You know, no doubt, that Lord Strangford is appointed British Ambassador at Constantinople; still, as I am informed that his Lordship intends remaining in Sweden for some months to come, I will dispatch your letter for him by a messenger, who goes to Stockholm tomorrow.

"Accept, dear sir, the assurance of sincere regard with which I have the honour to be,

"Your most obedient servant,

I Ellinghirthy

"Edward Thomason, Esq., Birmingham."

"My dear Sir,

1820.

"I write to thank you for the letters of introduction to Messrs. Brunton, and I beg you will do me the honour of permitting this treatise, forwarded herewith,\* a place in the corner of your library.

"I am, with respect,

"Yours, most truly,

Fredrick Acces

"Birmingham, 3d Feb., 1820."

At this period I commenced a series of 48 medals, to consist of copies of the celebrated Elgin marbles. These extraordinary relics of antiquity adorned the temple of

" Death in the Pot."

1820. the Parthenon at Athens, and were said to be the work of Phidias, a statuary of Athens, who flourished about 420 years before Christ. They occupied the east and west tympan of the temple; and some of them the metopes and friezes of the building; and it was found that when the statues were taken down they were perfect figures, finished before and behind. There was so much conversation about the beauty of this collection, that the report induced Canova to make a journey from Italy to view them; and in his letter to Lord Elgin he says, "The figures are real flesh in its native beauty. I esteem myself happy in having been able to see these master pieces with my own eyes; and I should be perfectly contented with having come to London on this account only."

It appeared to me that to copy the principal part of them on large size medals would materially improve my die engravers in anatomical precision. I selected 48 which were at the British Museum, and I petitioned His Majesty George IV. to permit me to dedicate the same to him, and to be allowed to have the honour, when they were completed, to petition his Majesty to condescend to accept of the first series.

"To His Most Excellent Majesty George the Fourth, &c., &c., &c.

"Sire,

"Your Majesty having, by the wisdom of your councils and the vigour of your fleets and armies, restored peace to Europe, have again leisure to extend your Royal care to the improvement and advancement of knowledge, your Majesty being loved and revered as the father of your people, and the enlightened patron of the arts and sciences.



# THE ELGIN MEDALS DEDICATED BY PERMISSION TO HIS MAJESTY GEORGE IV.

THE SERIES CONSIST OF 48.

. -• "Among your Majesty's loyal and faithful subjects I 182 cherish the hope to merit a name as one who has studiously endeavoured to improve the arts and manufactures of your Majesty's dominions; and being at this period engaged in the execution and completion of a series of forty-eight medals, illustrative of the choicest specimens of the Elgin marbles, I humbly beg your Majesty's gracious permission to be allowed to dedicate the same to your Majesty, and to lay the work, when finished, at the feet of your Majesty.

"That your Majesty may reign long, over a free, a happy, and a loyal people, is the earnest prayer of your Majesty's

"Most dutiful subject,
"And devoted servant,
"EDWARD THOMASON.

"Birmingham, March 20th, 1820."

"Royal Porcelain Works, Worcester, "May 15th, 1820.

"Dear Sir,

"Will you allow me to introduce to you the Marquis Ginori, who is arrived lately in this country from Florence. He is anxious to view the process of your interesting manufactories, and I shall feel personally obliged if you will do me the favour to permit him to inspect it on his arrival in Birmingham. I am very sure the Marquis will derive much gratification in witnessing the great display of ingenuity and talent you will be able to exhibit to him.

"You will still further oblige me if you will have the kindness to procure the Marquis an admission to see the process of the japan manufacture; and if you could favour

٠.

1820. him with a letter of introduction to any friend of yours in Manchester, I am confident the Marquis would derive great entertainment in viewing the manufactories in that extensive place. Entreating you to excuse the trouble I am now giving you, I am, in haste, dear sir,

"Yours, very truly,

"MARTIN BARR."

"Hatfield, 14th April, 1820.

"Sir,

"In looking over some papers this morning, I found an application for the appointment of George White, jun., for a mail guard, which was numerously signed, and among these I perceive a recommendation from you in the young man's favour. There is no possibility of putting him upon the list at present, but should an opportunity offer by and by, I will forward the recommendation.

"I presume, in such a rich and populous town as Birmingham, you have established a Savings Bank, which is now pretty largely adopted through the country. I take the liberty of sending you two copies of those which have been established in this county for four years, the produce of which has exceeded the most sanguine expectations.

"I am highly pleased with the invention you have made of the brush I ordered.

"I am, Sir,

"Your obedient servant,

Alisbury

"London, 4th May, 1820.

1820.

"My dear Sir,

"I have very great pleasure in introducing to your acquaintance my particular friend, Marquis Ginori, of Florence, who visited this country in 1815, when, I believe, he paid his respects to you; as, however, the circumstance may have escaped your recollection, I have now to request the favour of your showing him your extensive manufactory, and pointing out anything else deserving the attention of a stranger in your populous and busy town. Be assured, my dear Sir, that it will afford me infinite satisfaction to reciprocate similar attentions to any friends of yours visiting the metropolis; as I shall gladly avail myself of any opportunity of proving how grateful I shall feel for any you may be pleased to show to my excellent friend, the bearer of these lines.

"With kind remembrance to Mrs. Thomason, I beg to subscribe myself,

"Your obliged humble servant,

Sames Coldell

"Edward Thomason, Esq., Birmingham."

"Sir,

"Having upon several occasions experienced from you very particular attention, I fear you will think I am presuming upon it in requesting you to allow Mrs. Scott, a friend of mine, to view your manufactory, &c.

1820. "I hope you will forgive the trouble I am giving, and believe me to be,

### "Sir,

"Your obliged and obedient servant,

Hood

"12, Wimpole Street, May 8th, 1820."

"Carlton House Palace, June 13, 1820.

"Sir,

"I have the honour to reply, in answer to your letter to Sir B. Bloomfield, of May 13, that the King has been graciously pleased to approve of your dedicating your work of the Elgin Marbles, by permission, to his Majesty. Wishing every success to your undertaking,

"I remain, Sir,

"Your obedient humble servant,

I. S. Clarke

"Librarian.

"P.S. You will be careful not to insert any other words than those sent, as the terms of patronage and especial protection are sometimes incorrectly inserted."

"Paris, le 24me Juin, 1820.

#### "Monsieur,

"J'ai l'avantage de vous écrire pour vous faire part de mon arrivée à Paris depuis mon rapide voyage dans votre beau pays. Je choisis le premier moment de tranquillité que j'ai pour vous adresser mes complimens et mes remercimens pour toutes les bontés

et les politesses que vous avez engé pour moi. Je desire 1820. bien sincèrement trouver l'occasion de pouvoir vous en temoigner ma sincère reconnoisance.

"D'àpres vos offres obligeantes, je prendrai la liberté de vous adresser Monsieur le Marquis Bidolfi et Monsieur le Comte Sannazaro, mes amis intimes, qui desirent connoitre votre pays; j'espere que vous agirez de même à mon égard en m'addressant aussi vos amis qui viendront en Italie.

"Je vous en prie de recevoir cette Romaine que j'ai ordonnée, avec la note du prix courant, et de l'envoyer à Londres à l'adresse de Mr. Bell. Vous me firez plaisir d'en payer le montant, et de prendre votre remboursement sur Mr. Bell, ou sur Mons. le Marquis Pucci. Je vous prie encore de m'envoyer, par le même moyen, la note du prix des fabrications du joli moulin que j'ai vu, et duquel nous avons parlé.

"Je suis, avec les sentimens de la plus parfaite amitié, et de la plus haute consideration,

"Monsieur,

"Votre très humble et très dévoué serviteur.

"A Mons. Thomason, Birmingham, Angleterre."

"Arlington Street, 29th June, 1820.

"Sir.

"I am very anxious to make an alteration in the beautiful or-molu ornament you sent to Hatfield last summer; we very frequently use the bottom part without the top, which, however, deprives us of the flags.

1820. Could they not be made to fix in the lower circle instead of the top?

"I also want to substitute for the Duke of Wellington's figure an oval medallion of his Grace, surmounted by warlike trophies, and the Waterloo flag in the centre. I wish much that you would send up a very beautiful drawing, that I may see the nature of it before it is executed; and, as the lion claws are rather low, it would add much to the splendour of the whole if they were raised upon a sort of plinth.

"I am, Sir,

"Your obedient servant,



"London, 24th Aug., 1820.

"My dear Sir,

"I received your letter of the 27th of July, enclosing the medal of your beautiful model of the Warwick Vase, and am very grateful for that attention of yours.

"The Ambassador requests that I should return you his thanks for the offer of services that you have had the goodness to make him, and that I should say that he will accept them with very great pleasure when an opportunity offers. He thinks of visiting Scotland this autumn, and on his way he will stop at Birmingham, where he will be very glad to visit your interesting establishment.

"I have the honour to be, my dear Sir, your most 1820. obedient humble servant,



"Firenze, 19 Settembre, 1820.

## "Signore,

- "Sono arrivato in Firenze felicimente sino dal 4 Luglio decorso, e dopo pochi giorni di permanenza dovei di nuovo assentarmi per Affari, e ritornato, il 10-del corrente ho ricevuto la nota Stadera, La Macchina per sigillare le lettere, ed il piccolo Gioco dei Dadi. Ho avuto l'onore altresi di ricevere la sua Lettera del 4 Luglio, unitamente alla nota delle spese del consaputo Mulino.
- "Sento che Ella gradirebbe una Copia del Laoconte; credo che sia a sua notizia, che in Firenze abbianco un tal Gruppo, opera del Bandinelli, e che a Roma esiste detto Gruppo antico. Io posseggo nella mia Collezione una copia del primo, alta circa un piede; se questa le fà piacere; mi farò un pregio di mardargliela immediatamente.
- "Il Marchese Ridolfi non verrà altrimenti per ora in Inghilterra, e differirà la Sua Gita all' anno futuro; il Sig. Conte Sanazzaro, so che già e in Inghilterra, e credo forse, che si sarà presentato a V. S.
- "La prego di presentare i miei ossequi alla Sua Signora Consorte, ed al Figlio, che spero di rivedere presto in Italia.
- "Sento che Ella vuole incomodarsi a mardarmi le Cinquanta Medaglie dei Marini d'Elgens, ciò che sarà da me graditissimo.

1820. "Ricevo nel momento avviso, che stà per concluderis a Roma per me un'acquisto di diversi Gessi; subito, che mi perverranno, ghe ne mandero la nota, unitamente a quella della mia Galleria, accio scelga quello, che più le farà piacere.

"Sono intanto con la più distinta sturia, ed ossequis Di V. S. Illma.

" Dev. off. servitore,

"A Mons. Edward Thomason, Consul de France, Birmingham."

" Carlton House, Tuesday, 19th Dec., 1820. " My dear Sir,

L.C. Jinoy dipi

"Sir Benjamin Bloomfield has desired me to have the gratification of acquainting you, that it is His Majesty's pleasure to receive you this day about half-past two. It is therefore necessary that you should be here by two o'clock.

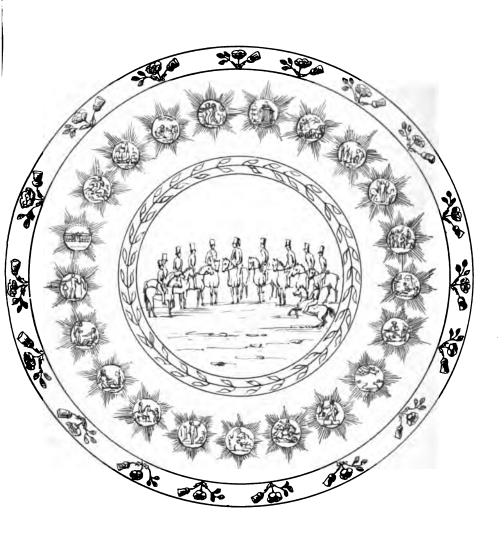
"Perhaps you will expect me to add (or, at least, excuse if I do add) that what is commonly called evening dress, in shoes, will be proper.

"With great respect, and in all sincerity, yours,

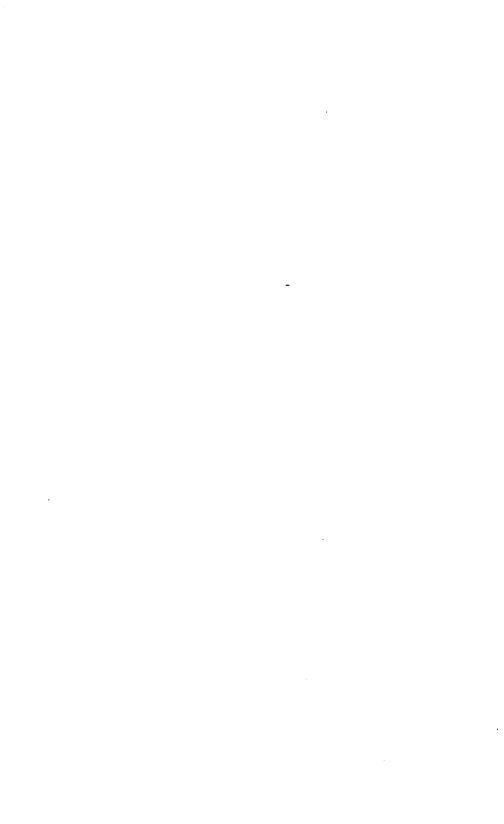
The manable

"Edward Thomason, Esq."

1821. January, 1821, I began a work of art which, I suggested would be honourable to the Noble Duke, the



THE WELLINGTON SHIELD.



Army, and the Country, and become an indestructible 1821. record of British valour. It was a shield in copper gilt, nearly four feet in diameter. The border consisted of twenty-one stellated compartments, in the centres of which were, in alto relievo, the most celebrated battles, beginning with those in the Peninsula, and ending with the surrender of Napoleon.

The subject of the centre of the shield was the Duke and his Staff witnessing the passing of the Bidasoa. In fact, the following will set forth the names of the staff which were embossed in alto relievo. It was completed in May, and placed in a mahogany case with a glass front, and placed in the Gallery of Bronzes, one of the show-rooms at the manufactory.

Centre. The Duke of Wellington and his Staff passing the Bidasoa, a river which rises in the Pyrennees, and common to both France and Spain. The subject is composed of Lord Dalhousie, Lord Beresford, Lord Hill, Duke of Wellington, Lord Niddrie, Lord Lynedoch, Sir Charles Doyle, General Archibald Campbell, Earl of March, Marquis of Worcester, Prince of Orange.

No.

- 1. Landing of the British Army in Portugal.
- 2. Battle of Vimiera.
- 3. Capture of Lisbon.
- 4. Passage of the Douro.
- 5. Battle of Talavera.
- 6. Lines of Torres Vedras.
- 7. Battle of Albuera.
- 8. Capture of Badajoz.
- 9. Passage of the Bridge of Almarez.
- 10. Battle of Salamanca.

- 1821. 11. Capture of Madrid.
  - 12. Battle of Vittoria.
  - 13. Battle of the Pyrennees.
  - 14. Capture of St. Sebastian.
  - 15. Capture of Pampeluna.
  - 16. Capture of Toulouse.
  - 17. British Army in the Netherlands.
  - 18. Battle of Waterloo.
  - 19. British Army enter Paris.
  - 20. Peace with Europe.
  - 21. Surrender of Napoleon to Captain Maitland, and from that ship on board the Northumberland, Captain Sir George Cockburn, and sailed off to St. Helena.

In 1819, Belzoni returned to England from his laborious researches in Egypt, for the discovery of ancient sculptures; particularly in opening the Pyramids of the Kings of Egypt, in which he found the beautiful venerable relic of primæval art, the marble sarcophagus, a tomb that has outlived dynasties and empires, and which adorns the Sloane Museum, in Lincoln Fields.

The variety of these primæval works of art he exhibited in London to the public. The newspapers teemed with compliments paid to him for his taste, and particularly for his unceasing assiduity, perseverance, and deprivation of comfort, essential to the exploring these tombs of the Egyptians. It appeared to me that his fame was worth recording upon a medal. I, therefore, wrote to my friend Mr. J. Brockedon, the celebrated artist, to try to obtain for me a likeness of G. Belzoni, when I would, at my own expense, execute a large medal of the

first class; which application brought me the following 1821. letter:—

"8, Buckingham Place, Fitzroy Square, May 8th, 1821.

"My dear Sir,

"I regret that circumstances have prevented my sending the model earlier; 'tis my first attempt, but it has the merit of being a very strong resemblance. All his friends are much pleased with it. If it can be preserved, I wish to have it again when you have done with it.

- "The name round the head-Giovanni Belzoni.
- "And round the Pyramid—Opened by G. Belzoni, March 2d, 1818.
- "I shall be glad to see the likeness well preserved; 'tis probable that I shall be in Birmingham again before I leave England, in July, for Rome.
- "With respectful compliments to Mrs. Thomason and your son,

"I am, dear Sir,
"Yours, very sincerely,

Mookedon

I had a long conversation with Mr. Nash, the King's architect, respecting the manufacturing of metallic capitals and bases adapted for scaglioli shafts, or even metallic columns for interior decoration; that the durability and even the beauty, as respects the capitals, would be highly desirable; and when Mr. Nash informed me that a large-size white marble capital, sculptured in the highest style, for inside decoration, might cost from one hundred and

1821. fifty to two hundred guineas, and which might be broken even in putting it up, this induced me to make one of the Corinthian order, that order being the most characterized for splendour and delicacy, the mouldings of the entablature being covered with sculpture, the volute being enriched with elegant scrolls, and the principal feature in the capital being a beautiful group of acanthus leaves, from which stalks rise, forming small volutes—in fact, a copy of that at Rome, from the temple of Jupiter Stator. I conceived these might be made in brass, of a beautiful gold colour, or bronzed, and in the highest style of sculpture, and screwed in separate pieces upon the bell of the bright burnished capital, and fastened on the inside with burns.

I made one of about eighteen inches high, after that of Jupiter Stator, and I was so much pleased with its beauty, that I put it into my carriage, and went up with it to Carlton House, and obtained permission to show it to his Majesty. On the day on which I arrived in town I was informed that the King was that evening going to give a grand juvenile fête. I obtained leave to place the capital upon a velvet cushion, upon one of the tables, presuming it might be likely in that situation to attract the attention of his Majesty, and also favourable for the company to see the novelty; and hearing that Lord and Lady Forester and family were going to the fête, I drove up to Sackville Street, where I informed the noble lord what I had done, exactly where the capital was placed in Carlton House, and how thankful I should be if he could call the attention of his Majesty to it. Lord Forester very kindly replied, "Depend upon it I will this evening be your showman." And being desirous to return home the following day, I wrote

to Sir Benjamin Bloomfield, the King's Secretary, in the 1821. morning, to allow my servant to bring it away. See his reply:—

Si B. Bloonfild

presents his compliments to Mr. Thomason, and has the honour to acquaint him that the King approves entirely of the Corinthian capital, and is much gratified by Mr. Thomason's attention.

Carlton House, 22d June, 1821.

In June I received a letter from his Royal Highness the Duke d'Orleans, to say that his son, his Royal Highness the Duke de Chartres, would visit England, to see its establishments, and he requested that I would give him every assistance. After two or three days' attention in Birmingham, in shewing the Duke the principal establishments in the town and neighbourhood, I gave him letters to the Potteries; and as the Duke de Chartres was very desirous to see the Earl of Grosvenor's splendid Gothic mansion, Eaton Hall, near Chester, and as it was known, from the Earl and his family being from home at the time, that some difficulty might arise in obtaining leave for his Royal Highness to inspect it, I gave his Royal Highness a letter of introduction to my friend, W. H. Folliott, Esq., formerly a banker of that city, and by another letter by the post prepared him to receive the Duke. He had made every arrangement at Eaton with his Lordship's Steward, who, in this particular case, took upon himself to prepare a proper luncheon, and appointed twelve o'clock the following morning that Eaton Hall should be ready for the Duke's inspection.

1821. As it was known from one end of the city to the other that his Royal Highness would start from his Hotel at eleven in the morning, the principal streets through which he had to pass towards Eaton Hall were thronged with the multitude, and the Duke, with Mr. Folliott, proceeded in Mr. Folliott's carriage; and several other carriages, containing some of the principal inhabitants, accompanied the cavalcade. After their return, his Royal Highness expressed himself highly delighted with the visit.

"Firenze, 16 Luglio, 1821.

" Pregiatissimo Signore,

"Mi pervenue sino di jeri la Collezione da V. S. graziosamente inviatami, ed annunziata con la favorita sua de' 18 Genuajo passato non sò comprendere qual sia stata la causa di si lungo ritardo.

"Fino da quel tempo la prevenni, che io non possedevo il Laoconte Greco, e mi si rendeva difficile ottenerne da Roma un Getto. Ne posseggo un Gruppo ni biscuit fatto alla mia fabbrica, e modellato su quello esistente in questa galleria; Opera insigne del nostro Bandinelli. Non avendo avuta fin qui replica aluma su tal proposito, ne conoscendo la sua intenzione, attenderò prima, che Ella mi scriva qualche coso, e per sua maggior regola la prevengo, che alla fine del prossimo Settembre mi portero a Parigi insieme can la Signora Marchesa Maria Anna Garzoni Venturi alla quale in Creve stò per conguingermi in matrimonio, e perciò Ella potrà a tal' epoca diriger colà le sue lettere.

" Se il suo Sig. Figlio fosse per intrapendere nel venturo Maggio un Viaggio in Italia, potrebbe a suo piacere

scegliere nella numerosa mie Galleria di Gessi, ciò che 1821. gli potesse convenire.

"Presentandole quindi i miei più sinceri ringraziamenti; la prego dei miei più rispettosi ossequi alla degnissima sua Signora Consorte, e figlio, econ la maggior considerazione e stima passo al piacere di dirmi.

"Di lei gentilissimo Signore.

"Dev. off. servitore,

L.C. Juior, difi

"A Mons. Edward Thomason, Consul de France, Birmingham, Angleterre."

On July 19th, His Majesty's Coronation was to take place, and two months prior, having been informed that Mr. Wellesley Pole, the Master of the Mint, had recommended *Pistrucci*, a foreigner, and the celebrated stone cameo engraver, to make the Coronation Medal die, I was convinced that England, and even Birmingham, now possessed artists equal to that artist as medal die engravers; and hearing that Pistrucci was well aware that he could not engrave medal dies unless he performed it by his beautiful mode of engraving antiques, I expected he would not succeed; and I was determined to make a fine large medal for that occasion, with a classical allegorical reverse.

I had a gold one deposited, as a present from me to his Majesty, in good time into the hands of Sir B. Bloomfield on the morning of the Coronation. See his reply.

1821.

Si B. Bloomfile

presents his compliments to Mr. Thomason, and having had the honour to present his superb gold medal to the King, is commanded to express his Majesty's thanks and admiration of it, and his sense of Mr. Thomason's dutiful attention.

Carlton House, 27th July, 1821.

Li B, Bloomfile

begs leave to express his thanks to Mr. Thomason for his great kindness in forwarding to him a beautiful coronation medal.

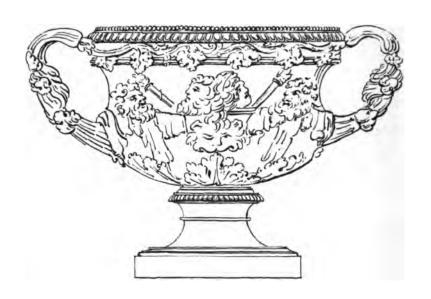
Carlton House, 27th July, 1821.

"Northumberland House,

Mr. Thomason's beautiful specimen in the coronation medal, on the complete success of which he congratulates Mr. Thomason.

"July 23rd, 1821."

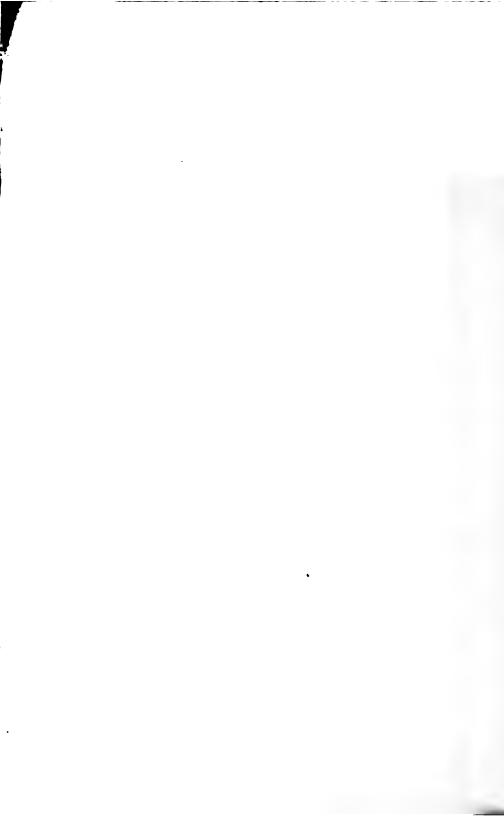
I was desirous to present his Imperial Majesty Alexander I. of Russia my series of forty-eight bronze medals of the Elgin marbles, in a splendid morocco case. I was well informed that there was great difficulty in obtaining leave to be honoured with the permission to tender a

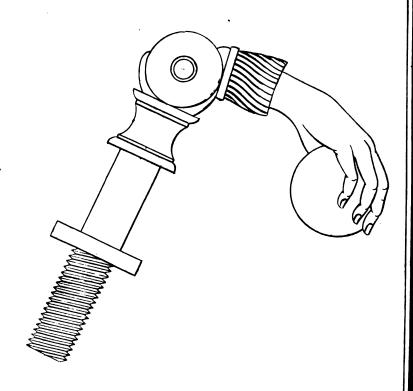


A BRONZE METALLIC VASE, (BEING A FAITHFUL COPY OF THE MARBLE ONE AT WARWICK CASTLE) 21 FEET IN CIRCUMFERENCE, AND 5 FEET 10 INCHES IN HEIGHT, MANUFACTURED BY EDWARD THOMASON, —— IT OCCUPIED 6 YEARS TO MODEL, CAST, AND TO SCULPTURE, AND WAS BRONZED IN DUCTOXIDE IN 1820.

AND ACQUIRED A PER OXIDE IN 1829.







Benvenuto Cellinis Knocker, Sculpturd and Placed by Him in the Year 1563, on the Front Door of His Residence at Florence.

present to the Emperor. I therefore addressed a letter 1821, to our ambassador there, together with my petition to the Emperor; and the whole of which packet, with the case of medals, I invoked my esteemed friend, Mr. C. R. Broughton, of the Foreign Office, to forward for me. See his letter.

"Foreign Office, July 23d, 1821.

" My dear Sir,

"The bustle occasioned by the Coronation must plead my apology for not having sooner answered your letter of the 18th instant. It will afford me much gratification to testify, by something more substantial than mere verbal assurances, the sense I entertain of the attentions you shewed me when at Birmingham; I shall therefore have great pleasure in taking charge of the little parcel you describe, which shall be sent by the first courier charged with dispatches for Petersburg; and I will write to our Ambassador there, to request his Excellency will cause your present to be delivered to the Emperor of Russia.

"The packet being too bulky to send by the common post, it must remain with me until a messenger goes. You have only to direct it to me at this office: I will take great care of it.

"Yours very truly,
MBroughton

" Edward Thomason, Esq."

"Teddesley, Sept. 9th, 1821.

"My dear Sir,

"Mr. Canning will be passing through Birmingham on Tuesday next, and would be happy to 1821. see your manufactory in the course of the morning, if perfectly convenient to you. He cannot exactly fix the hour, as he will be at Mr. Boulton's, and will probably have something to see there in the morning.

"I remain, my dear Sir,
"Very faithfully yours,

Altheton

"To E. Thomason, Esq."

"Liverpool, 11th Sept., 1821.

"Dear Sir,

"When I had the honour of seeing you at Birmingham, on my journey to this place for the purpose of embarking for Greenland, I received from you that flattering kindness I have very often thought of, and which will never be erased from my recollection; this, Sir, has urged the liberty of this address to thank you warmly from my heart, and to say it is my intention on getting to Birmingham, which will be in a very few days, personally to offer you my sincerest acknowledgments, if leisure will permit to spend a few hours in your society. In the hope a brief statement of what has passed since we met may amuse, I shall trespass on your time in stating. A voyage to Greenland, as a whale fisher, is among the most interesting expeditions that can be undertaken; and, although that frigid region is annually visited by many, the circumstances and occurrences are scarcely known. But to those who derive gratification in examining subjects of remote countries, the polar world affords an inexhaustible source of delight; there an active mind can never flag or be wearied by sameness. No sooner do you enter

the ice than masses of congelation present themselves in 1821. the most varied forms the imagination can fancy, and some of extreme elegance and chaste classical taste; from them I was perpetually pleased, and afforded constant employment to my pencil. These extraordinary forms are, as you must naturally suppose, modelled by the hand of Nature, of elaborate whiteness, polished by the continual vibrating motion of the ocean, and often tinted in colour exquisitely delightful to the eye of an artist. A country so extremely favourable to the beautiful process of crystallization, and for observing congelating action, there cannot be; and here the philosopher is interested, beyond conception, in the extraordinary features produced by refraction. The lover of natural history has a wide field in the large scale of Nature. The sportsman finds endless resources; but he who enjoys pursuits in which great danger and enterprise are attendant, nothing can equal the attack of an active vigorous whale or ferocious polar bear, which makes the tiger hunts of Asia very, very tame, and I had the good fortune to be engaged with some of most extraordinary nature. I informed you, when I had the pleasure of seeing you, what was the object of my visiting the arctic regions-that of improvement in the whale fishery; but I concealed from the world, as well as yourself, the nature of and design of the implement by which such improvement was to be effected until the best opinions could be formed by the most experienced persons on them, and I had seen the animal they were designed to take, and made my own observation on the present system, which has established the important value of my productions. The ship in which

I sailed were so bigoted to the usual manner, and have most dearly paid for their folly, having killed only four

1821. large fish, and lost ten, every one of which I would have killed had they allowed me to use my gun. In the early part of the season fish were in abundance; then they would not allow me to proceed, and, as if a judgment had fallen on them, from the time I was at at liberty, we sailed through 1500 miles of ice, where water and situation is known to be most favourable to whales, not a fish was seen, and I had only the opportunity of displaying its excellence on an unicorn, which, although passing with extraordinary swiftness, my harpoon went through it ten yards. But my great object was a hand harpoon, on an entire new principle, with shells to produce instant paralysm and death, and carcasses containing a gas most destructive to life. The harpoon will most effectually secure the animal that forms so important a part of British commerce. The shells and carcasses, to be applied when the fish is struck with the harpoon, has humanity as well as great utility to recommend them, in preventing the fatal accidents that so often occur to the crews of boats when capturing what are termed wrecked fish, by which one man in the Vigilant was killed, and three from the Ann, a Scotch ship, this season, and not a year passes without some such calamity. They will also quickly exterminate the torture the fish now so often undergo for many hours, consequently destroy the barbarity often unavoidable, which has called forth on the whale fishery the clamorous indignation of some who possess the finer feelings of sensibility. I have been thus minute, as I am anxious, while at Birmingham, to learn if there are any persons at that place in the manufacture of implements, or who would be likely to treat with me for the making the many that will be required, as every commander of whale ships that came on board

to see them, and solicited me to visit their ships while in 1821. Greenland, gave me their warmest approbation of their utility, and assurance that, on their return to port, they should most strongly recommend them to their owners for use.

"I shall bring with me a journal kept, minuting every observation of the country, and containing many interesting circumstances; my sketch-book will also accompany me; and if their perusal will tend to afford you any amusement, it will give me very great gratification. May I request the favour of your leaving a note at the bar of the Hen and Chickens, and state what time of the day you are most at leisure.

"I am, my dear Sir,
"Your very much obliged humble servant,

Geo. W Manby

"Pray excuse haste."

"Sea Point House, Dublin, 24th Sept., 1821.

"Dear Sir.

"I did not fail on my arrival here to wait on my friend Mr. Grant, and delivered to him the design, in which you assisted me, for a medal, together with a memorandum that, if his Majesty approved of it, you had engaged to have it executed in the best manner possible. Mr. Grant has just informed me that he gave it to Lord Sidmouth, with my letter, to lay before the King, and that the design was highly approved by his Majesty; I am, therefore, in hopes that Lord Sidmouth has seen you on the subject, as he passed through Birmingham on his return to London. You will much oblige

1821. me if you will have the goodness to inform me whether this is the case, and that you have received orders to proceed in it. Please to address me under cover to Sir E. Lees, Post Office, Dublin.

"I have the honour to be, dear Sir,
"Your most obliged humble servant,

Rob Frasen

"P.S. I beg to offer my best respects to Mrs. Thomason."

"Brighton, 7th Oct., 1821.

"Dear Sir,

"As I shall remain here for some months, you will oblige me by directing the wine coolers, with the other articles ordered, to be forwarded to me here. I am anxious to shew the coolers, as they only require to be seen to be admired; and I assure you it will afford me great pleasure to have the opportunity of giving you some wine from them, as well as of forwarding your other views.

Lady Tierney and Miss Jones often mention your very kind attentions to us, and will have great pleasure in thanking you again personally should you visit this place during our stay; or Dover-street, in the spring. I beg you to accept my best thanks for all your polite attentions, and to believe me to be

"Dear Sir,

"Your obliged and humble servant,

Medienry

"Dear Sir,

1821.

"My friends, the Prince and Princess San Cataldo, and the Count and Countess Sant Antonio, are going this day to Birmingham, and wish to view all the manufactories. They are scientific; and the Prince is much interested in things of this kind. They are of the highest nobility of Sicily. I shall feel obliged by your showing them, not only your manufactory, but any other they may wish to see.

"Believe me to be,

"Yours ever truly,

mount homis

"Arley Hall, Oct. 22d, 1821."

"Teddesley, Nov. 19th, 1821.

"My dear Sir,

"I have communicated to the Duke of Wellington the correspondence I have had with you relative to the wish of yourself and other gentlemen at Birmingham to shew him the principal manufactories of the place. The melancholy occurrence adverted to in your letter would have rendered this an unfavourable moment for a visit; but, independently of that circumstance, the necessary shortness of the Duke's stay in the country would have made him desirous of seeking another opportunity of having that pleasure. And he has desired me to say that on some more favourable occasion he hopes to make a visit to the town; and that he would,

1821. any future time come down for that express purpose. I remain, my dear Sir, very faithfully yours,

Aftheton

"To E. Thomason, Esq."

"Whitehall Place, Dec. 7th, 1821.

Mr Mushiff on presents

his compliments to Mr. Thomason, and is very much obliged to him for the trouble he has been so good as to take in forwarding the medals, which have arrived quite safe.

"Mr. Huskisson trusts that he may, on some future occasion, be enabled to profit by Mr. Thomason's obliging offer of assisting him in the more detailed view of the very interesting and ingenious manufactories of Birmingham. Mr. H. particularly regretted that his very short stay in Staffordshire prevented the possibility of his profiting by Mr. Thomason's kindness at this period."

1822. In February, 1822, I finished a pair of medal dies for Robert Gilmor, Esq., of Baltimore, to commemorate that his father and mother had lived in the marriage state in perfect harmony 50 years. The dies were done from models sent me; the obverse the likeness of Mr. and Mrs. Gilmor, and the reverse corroborating the event. A large number, consisting of gold, silver, and bronzed,

were struck off agreeable to Mr. Robert Gilmor's order, 1822. and the whole highly approved.

In March there was much conversation about a person calling herself the Princess of Cumberland, as being the niece of George III., &c., &c. She sent me a highly coloured design for the obverse and reverse of a star, calling it the Royal Ancient Order of the White Eagle of Poland. In the garter, *Pro Rege*, *Lege*, et Grege.

THE ROYAL ANCIENT ORDER OF THE WHITE EAGLE OF POLAND.



This ancient order is a star with seventeen golden points terminated with brilliants—say a mina nova. In the centre, on a crimson ground, is a spread white eagle, covered with brilliants—say mina nova, armed, and imperially crowned, with the zodiacal sign "b" (Capricorn) below, surrounded with a blue belt edged with small green stones in imitation of emeralds, with the motto (in gold) *Pro Rege*, *Lege*, et Grege (for the King, Law,

## IX. THE FLAGGONS.

1822.

The attitude and allegory of the *Illissus*, called the God of the river which runs along the south side of the plain of Athens, and which is so universally admired, presents a suitable ornament for the subject of one flaggon, the foliage ornaments being the water lily.

For the other flaggon I propose the Theseus in a reclining position, to correspond, the foliage ornaments being the vine and fruit.



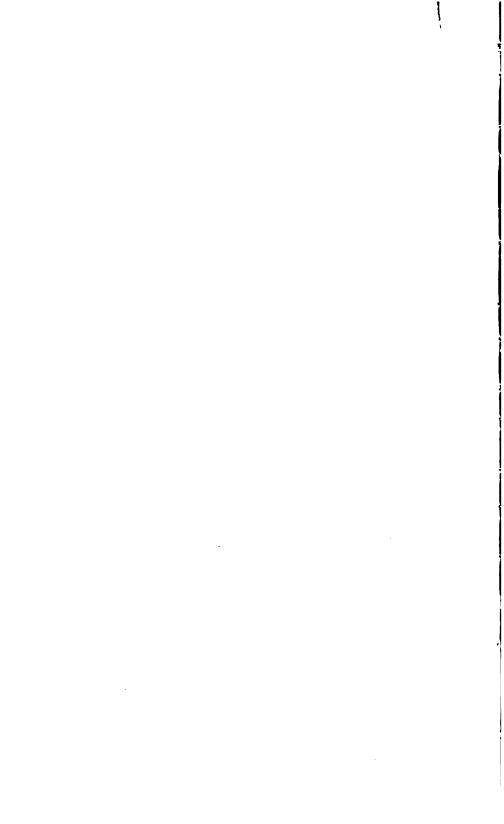


THE SALT CELLAR.

## X. THE SALT CELLARS.

1822.

I have selected Neptune sitting at his ease on a shell, which rests upon a dolphin stand. The upper part of the salt-spoon is a trident, as combined emblems for the salt cellars.



When ready, I started with it to town, for the express 1822. purpose of laying the same before his Majesty; in a circumstance of such a nature it was not an easy thing to effect. Mr. Francis Lawley, M.P., being in town, and he being our member, and having the interest of Birmingham at heart, I first applied and shewed the book to him. See his letter to me:—

"Dear Sir,

"I am sorry I was not at home when you called this morning. I wished to inform you that I had a long conversation last night with Sir Charles Long—as satisfactory, at least, as the former one. But he stated that at present his Majesty is confined to his bed by gout, and that previous to his recovery it will be very difficult to arrive at any determination on the subject of your drawings.

"I remain,

"Dear Sir,

"Very faithfully yours,

"May 8, 1822."

I then requested an interview with Lord Sidmouth, from whom I received the following note:—

"Clifford Street, May 10th, 1822.

his compliments to Mr. Thomason, and will be glad to see him at one o'clock, either to-morrow, or on Saturday, as may be most convenient to him.

"Edward Thomason, Esq."

1822. Reply of his Majesty the Emperor of Russia:—

"London, the 20th of May, 1822.

"Sir,

"The Emperor, my master, has received the letter which you have addressed to his Imperial Majesty, and he has been pleased to accept the series of medals which you have forwarded at the same time, and which are illustrative of the marbles brought from Athens by the Earl of Elgin.

The Emperor has charged me, not only to thank you in his name for your attention, but to transmit to you the accompanying diamond brooch, which his Imperial Majesty wishes you might receive as a testimony of his satisfaction.

"I remain, with much esteem, "Sir,

"Your most obedient servant,

"To Edward Thomason, Esq., Birmingham."

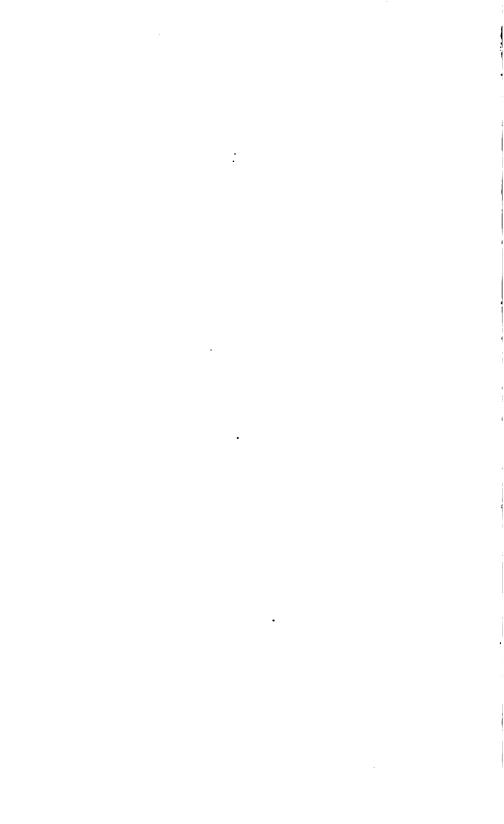
I also had interviews with the Duke of Wellington, the Duke of Devonshire, the Duke of Manchester, the Duke of Dorset, Lord Liverpool, Lords Shrewsbury, Albermarle, Lonsdale, Sir Charles Long, Mr. Huskisson, Mr. E. Lyttleton, Mr. Nash, Mr. Edgar Ellis, and, in all, about forty nobles and gentlemen of taste; all of whom hoped I might succeed in making the service for the King, and that the first classical service might be manufactured in England.

So far it went off satisfactory. My Lord Sidmouth



An Emerald Broach, set round with Brilliants. 
Presented to the Author by

His Imperial Majesty the Emperor Alexander



observed that the privy purse was low; I suggested that 1822. in the King's plate-room there was an immense weight of old Hanoverian and other badly executed plate, which his Majesty never used; I examined it, and I should think that there was a sufficient weight, which was of no use, to perfect the whole service. All this was considered as a fortunate discovery, and every hope was entertained; but it so occurred that Mr. Hume and that party brought something before the House, on the 14th and 15th of May, relative to the great expenditure in the Civil List. Lord Sidmouth sent for me, and said he thought it should be waived for the present until the storm was blown over. I, therefore, returned home, and I left the box containing the book of drawings, or designs, at Mr. Lawley's, who was at the time absent from On his return he kindly sent me the following letter to Birmingham :-

"Grosvenor Square, May 30, 1822.

"My dear Sir,

"On my return to town this morning, I found your letter, and the box containing the drawings and designs, of which the greatest care shall be taken.

"I perfectly coincide in the opinion and advice which you received from Lord Sidmouth. I will immediately confer with Mr. Dugdale on the best and most prompt method of getting his Majesty to admit your book of designs into his presence, and I am not without a hope that your well-founded expectations may yet be realized at no very distant period.

"I remain, dear Sir, most truly yours,

Flawley

"Edward Thomason, Esq., Birmingham."

1822. This service of plate got much talked of, so that the King heard of it, and I was advised to go back to London as if I had never left it, and obtain an audience. I wrote to Lord Conyngham, saying that I had wanted a favourable opportunity to tell him my wishes, and he, Lord Conyngham, sent me the following letter:—

Lond Compresham

is much concerned he was not at home when Mr. Thomason called upon him this morning. Lord C. will be glad to see Mr. Thomason to-morrow morning, at any hour between eleven and two most convenient to Mr. Thomason.

Friday, June 6, 1822.

I waited upon Lord Conyngham, at his house in Gloucester Place. I was agreeably surprised to learn that the King was there. His Majesty condescended to look over the whole of the book of designs, and expressed his royal pleasure.

I had an hour's conversation with Lord Conyngham, in his library, afterwards; he advised a postponement of the measure, in consequence of what was stated in the House. I then returned home, and circumstances relative to the expenditure in the Civil List increased in trouble during the whole of that year. If the King should have disapproved of having the old Hanoverian plate melted down, 35,000 guineas (my estimate for the silver gilt, commonly called gold plate) was startling, although for a service of mere leafage the King had paid £33,000; and so this important circumstance to me remained,

nothing turning up to warrant the outlay during his 1822. Majesty's life.

I was desirous to make a pair of silver candelabras, like those in the Radcliffe Library, at Oxford; and I wrote to my esteemed friend, Dr. Tournay, to know if my draughtsman would be admitted to copy them. See the Doctor's reply:—

"Peterborough, Aug. 19, 1822.

"Sir,

"Your letter of the 2d inst. has been sent to me at this place. When I return to Oxford, in October, I will not fail to execute your commission, if possible. Permit me to add, that it would afford me great pleasure personally to thank you, at Wadham College, for the polite attention which I experienced at your most interesting manufactory.

"I remain, Sir,

"Your most obedient servant,

W Tourney

"Edward Thomason, Esq."

"Dunn's Hotel, Westminster Bridge, Sept. 9, 1822.

"Sir,

"I beg your acceptance of the only engravings I can procure of the candelabras in the Radcliffe Library. Though they exhibit a general likeness, they do not represent the parts with sufficient distinctness, and I think you will find it necessary to have drawings made of some parts, at least. If, to decide on

1822. this point, you, or your son, visit Oxford after the middle of next month, I shall be happy in shewing you my best attentions at Wadham, and in being otherwise as useful to you as possible.

"With my compliments to Mr. Thomason, junior.
"I remain, Sir.

"Your most obedient servant

W Tourney

"Edward Thomason, Esq."

At this period the Government of Spain made me their Vice-Consul for the town of Birmingham.

"Consulado General de la Nacion Espanola.

"Conviniendo al Servicio de S. M. Catalica y á la Proteccion de sus subditos que haya un Vice-Consul de la Nacion en la Ciudád de Birmingham—para que proteja y asista a aquellos Espanoles que residieren, Uegaren á dicha Ciudád: y concurriendo en la persona de Don Edwardo Thomason, residente en Birmingham la intelijencia, ceto y prudencia que se requieren para el desempeno de tan importante encargo, usando de las facultades que como Consul-Jeneral me estan concedidas por S. M. la Reina en nombre de Augusta Hija en su Real Patente dada en Madrid á 23 de Julio de 1822, Ye estando autorizado para ejercerlas en esti Reino Unido por el Regio Exequatur de S. M. Britanica, expedido en 14 de Agosto del mismo, he venido en elegir y nombra portal Vice-Consul de la Nacion Espanola en la Ciudád de Birmingham, previa la aprobation de S. M. al Expresado Don Edwardo Thomason—para que sirva y ejerza, por

el tiempo demi voluntad, este empleo con todas las pre- 1822. eminencias y privilejios que gozan los Vice-Consules de las demás naciones: con prohibicion de poder nombra por si quien le reemplace, ni aun accidentalmente para el desempeno de sus funciones en calidad de interino, ne ajente del Vice-Consulado: pues en el acto de faltar á esta clausula quedara nulo este nombramiento.

"Por tanto exorto y encargo ă todos los Capitanes Espanoles, Patrones, Maestres, de Navios, o de otras cualesquiera embarcaciones y a los Comerciantes, Marineros y demás nacionales, traten, honren y reconozcan al referido Don Edwardo Thomason. Como a tal Vice-Consul, satisfaciendole los emolumentos v derechos que le correspondan, sopena, de ser apremiados á ello. Y por ultimo, pido y ruego ā todas las Autoridades, asi Civiles como Maritimas y Militares de este Reino Unido á quienes to care, reconozcan al Citado Don Edwardo Thomason por tal Vice-Consul de la Nacion Espanola, y le permitan ejercer su empleo libermente en la mencionada Ciudád de Birmingham dandole todo el favor y ausilio que para ello necesitare.

"Don Ignacio Perez de Lema. "Dado en Londres, 29th de Agosto, 1822."

"Sydney Park, Sept. 21st, 1822.

"Sir,

"I think myself much obliged to you for your letter, though the information which occasioned it was inaccurate. Two of my daughters left York for Worcestershire, about three weeks ago, but I was obliged to separate from them at York, and to travel through London to this place, where they met me three days since. Our hope and intention was to travel together, and to

1822. visit some objects of the most powerful attraction, particularly in the counties of Derby and Warwick. This plan, however, was unfortunately and unavoidably frustrated, and we accordingly missed the pleasure we had promised ourselves from your proffered kindness, of which we trust that you will permit us to avail ourselves on some future occasion.

"I am, Sir, "Your obliged and obedient servant,

Sidmonth

"Edward Thomason, Esq."

Sir William Parker Carrol, Commandant at Malta, wrote me the following letter:—

"Malta, 24th Oct., 1822.

"My dear Sir,

"Herewith I enclose you a letter from the President of the Mess Committee of the 18th, or Royal Irish Regiment. They want a number of articles of silver (not plated) for the mess, perhaps to the amount of between four and five hundred pounds; and though such an order may not be of very great importance at the present, yet, knowing that every thing that comes from your house will recommend itself for its taste and elegance, I consider that furnishing the Royal Irish Mess with these articles might lead to extensive orders from other corps. At all events my writing you upon this occasion affords me an opportunity of expressing my regard for you, and assuring you that it will ever afford

me gratification to have opportunities of evincing how 1822. truly I am,

"My dear Sir,
"Yours,

Markertand

"If I can be of any use to you in any way in the Mediterranean, command me most freely.

"I inclose you a drawing of the breast-plate of the soldiers of the Royal Irish, which will give your draughtsman the motto of the Regiment.

"E. Thomason, Esq."

I received the order from Captain William Pratt, President of the 18th Regiment, lying at Malta. It however came to about £1000.

Some time after this, but the note does not mention the date, Sir William Parker Carroll passed through Birmingham on his road to Ireland. I was absent from home; but he left me the following letter, dated Royal Hotel, with a magnificent folio volume of Spanish designs:—

"My dear Sir,

"I feel gratified at sending you 'Le Antichita di Ercolano,' which, fortunately, I had in the carriage with me. The other three volumes are in

1822. Spain, but I hope at some future period I shall have the pleasure of sending them to you.

"Yours, my dear Sir,
"Very faithfully,

"Royal Hotel, Thursday Evening."

The Common Council of the town of Liverpool determined to have a copper bronzed pillar, of about forty feet high, erected in Liverpool, with a gas light at the top, to give light for the harbour, &c., and my friend, Mr. John Foster, jun., the City Architect, applied to me to be one of the candidates to manufacture it, and to send in designs. I made and forwarded him a design with the lantern of Demosthenes on the top, the bottom of the lantern being of one piece of plate glass. I offered to erect it for 1,500 guineas. See Mr. Foster's reply:—

"Liverpool, 14th November, 1822.

" Dear Sir,

"The Committee of the Common Council of this town having already determined upon the design for the pillar to support the gas light intended to be erected in this town, they decline to deviate from their resolution, and, consequently, to accept the drawing which you were so kind to send. I have, therefore, forwarded it to you per coach this evening, and am very sorry you have given yourself the trouble to cause its being made.

"I must, however, candidly confess to you that I admire it very much, particularly the lantern, which I

think is very creditable to your classic taste. I will not 1822. fail to lay before the next Committee your estimate for the pillar, according to the design they have chosen, to be executed in bronze, the result of which I will immediately communicate to you, though I am very fearful its amount will exceed their expectations.

"I remain.

"Dear Sir,

"Yours, very truly,

" Edward Thomason, Esq., Birmingham."

On being permitted to go over the Pavilion Palace at Brighton, it was remarked to me that, from the principal drawing-room, there was a beautiful spot for a fountain. I made a design of a column of thirty-two feet in height, to overcome any atmospherical pressure, and I suggested some simple forcing machine, to be moved by two horses, (quite out of sight of the palace) which carried the water up a six-inch pipe, and forced it out about six feet above the top. See Sir William Knighton's letter:-

"Sir,

"I have received by the hands of the Lord Steward, a drawing of a design for a fountain, which you propose to erect on the lawn at Brighton.

"I have had the honour of laying this before His Majesty, but I have received no commands on the subject; should I do so, at any future period, they will be immediately communicated to you.

1823. "I request the favour of you to mention by what conveyance I should return the drawing.

"I remain, Sir,
"Your faithful, humble Servant,

"Pavilion, Brighton, 4 November, 1822."

At this period I was making experiments to produce the Tutenac of the Chinese. See a copy of my letter to the Secretary of the Society of Arts, A. Aikin, with specimens, and the mode of making it:—

"To A. Aikin, Esq., Secretary to the Society of Arts, Adelphi.

"Birmingham, 9th May, 1823.

Minighton

"Sir.

"You will oblige by submitting to the inspection of the Society for the Encouragement of Arts and Manufactures the two specimens herewith sent of a metal bearing a strong similarity to the tutenac of the Chinese. In a series of metallic experiments which I have lately made, I have obtained the metal of which the two specimens herewith sent are composed, and as I know of no metal, or composition of metals, having for its appearance a silvery hue but what immediately oxidizes or changes its colour, without the possibility of restoring the same, with the exception of silver, I have some reason to believe that the metal which these two specimens are composed of may be applied in many cases to the arts and manufactures.

"These have been cast about seven weeks, and I

placed them in a damp, moist situation, to witness 1823. what change might take place by the absorption of oxygen. It is true that a tarnish or partial oxide was found, but so slight was the tinge that the tarnish was immediately removed by wiping it with a leather or cloth, and its primitive lustre regained. Its texture is close and compact, and its specific gravity about 8.750.

Iron.	Spelter.	Copper.	Nickel.
17,000	600	4,500	700

I produced it as follows:—As iron is fusible at 17,000 (Fahrenheit), Copper, 4,500; nickel, 800; and zinc, 600, I found it advisable to place the iron first in the crucible, when, perceiving that it was fused, I added the copper; then when these two metals were found in a state of fluidity, I threw in the nickel, and last of all the zinc; but as this last metal quickly sublimes the whole, it was actively stirred up with a steel spatula for about a minute, and immediately poured into the moulds prepared for its reception.

"The quantity of each of the ingredients is as follows:—

Iron wire,	5	ounces
Copper wire,	85	ditto
Nickel	65	ditto
Zinc	<b>55</b>	ditto
•	210	

"It retains a very high temperature, and is easily cast into large things, such as equestrian and other statues, columns, capitals, entablatures, pilasters, and other large work, and peculiarly adapted for them, inas-

1823. much that its hardness is so great as almost to resist impressions from a violent blow of the hammer.

"I am, &c., &c.,

"EDWARD THOMASON."

"Society of Arts, &c., Adelphi, London, 13th June, 1823.

"Sir,

- "I have the honour to inform you, that your specimens and letter to the Society instituted for the Encouragement of Arts, Manufactures, and Commerce, have been received by me, laid before them, and referred to the consideration of a Committee.
- "When their opinion upon the subject is confirmed by the Society, I will acquaint you with the result.

"I remain, respectfully,

"Sir,

"Your obedient Servant,

A Athini Pay

"P.S. Your communication, having arrived too late for consideration during the present Session, is necessarily postponed till November next."

"Mr. Thomason."

His Majesty George IV., knowing that I was making a statue of himself, very kindly, through Sir William Knighton, presented a print to me, just published, of His Majesty.

"Carlton Palace, August 19, 1823.

"Dear Sir,

"I have had the pleasure of sending to you,

by the coach of this evening, a print that I promised to 1823. you of His Majesty on Friday last.

"I should be glad, when you have completed the order which I gave you for my knives and silver gilt spoons and forks, that you would put them all in appropriate cases, for the purpose of being conveniently kept.

"I remain, dear Sir,

"Your faithful and obedient servant,

Minighton

"E. Thomason, Esq."

"Belgrave Place, 28th Aug., 1823.

"Dear Sir,

"Mr. Bain is a young man with whom I have taken some pains to improve him in his profession, and he is desirous of showing you some of his work, in the hope that you may, at some time, have it in your power to assist him; but I will leave him to explain his own views. I think he has been peculiarly successful in the head of Sir Walter Scott and Mr. Canning, and also in one of the King, which I have allowed him to copy from my busts.

"I remain, dear Sir, very truly yours,

"To Mr. Thomason."

1823.

"8, Gough Square, Fleet Street, London, Sept. 1, 1823.

"Sir,

"I avail myself of Mr. Chantrey's introduction, to submit to your inspection impressions from some of my dies, which he has kindly permitted me to execute from his busts, and under his direction. my intention to do a series of medals from busts of eminent men which Mr. C. has executed, and publish them; but to this I have not altogether resolved, and, therefore, beg to submit to you, in the first instance, whether you would purchase the three dies from which the impressions sent are taken; and, if so, what you could allow me for them, as, should it in any way compensate me for my time, it would induce me to dispose of them, and devote myself entirely to the engraving of I could add the favourable opinion of several persons of taste; but your own good judgment will best direct you in forming your opinion of them, which, if you will be kind enough to give, along with your advice, you will much oblige,

"Your obedient servant,

11mBain

"Mr. Thomason."

"Leamington, 3d September, 1823.

"My dear Sir,

"I send you the Swedish passport; though I find that, instead of the national, it bears the arms of H. E. Count d'Engestrom, the Minister of Foreign Affairs. Still it is the Swedish passport, and I keep my promise. On getting home to the Royal Hotel, after 1823. my very interesting visit to your noble depôt of arts, I found myself so late for my engagements that I could not take a moment to open my papers.

"Nor could I take a moment to do something infinitely more obligatory and more interesting, to wit, return you my written acknowledgements for the very distinguished reception and kindness I met at your hands on my visit to your establishment. I thank you sincerely for your polite welcome, and the trouble you so kindly underwent to exhibit to me the beauties and the wonders of your house.

"I have had great pleasure in comparing my observations with those of Mr. Robinson and Lady Sarah, and finding that the only effort or emotion with us is to surpass one the other in admiration. I extolled, very highly and very justly, the beautiful bronze vase chosen by the Chancellor of the Exchequer. By the bye, I decidedly think that the bronze is the most suitable colour for the Warwick Vase. I find it to accord with its antiquity, and the grave ideas associated with so old and massive a work, better than silver, silver and glass, or silver gilt.

"I shall be in London until the 15th, and most happy to hear from you, and at all times to give you evidence of the high consideration and respect of,

" Dear Sir,

"Your very obedient servant,

Christopher Hughes for

"Mr. Thomason, Birmingham."

My modellers had, from the beginning and during

1823. eight months of this year, been employed in modelling a statue of George IVth, six feet in height, and alternately the four celebrated Venetian Horses; and being desirous of making the first bronze statue that has ever been achieved out of the capital of an empire, I erected a cast-house on purpose. In about eight months my artist completed the model in clay (white clay), the attitude of which was the King in his robes of state, with the sceptre in his right hand, and holding back the folds of his robes with his left.

At this period it was understood that no artist except Mr. Westmacott attempted to cast colossal statues in copper or bronze metal; indeed, I believe no one had a cast-house properly adapted for that end but himself, and the process he kept a profound secret.

On reflection, it appeared to me, as I had already cast small two-feet statues or figures in copper, for chimney-piece ornaments to hold candles, that if the same means were taken upon a large scale as were adopted upon a small one, success must evidently follow. Mr. Westmacott was not of this opinion, and he came to Birmingham to pay me a visit for a day, just as the model was finished. I, however, pursued this system. The clay statue having been made perfectly dry some weeks, and the machinery for winding it up and down, for the convenience of the moulder, being by this time erected, the moulds were now made with a peculiar mixture of fine sand and plaster of Paris. These moulds were made perfectly dry by the heat of many small stoves all round the inside of the casting-room. The core was suspended in a beautiful manner by innumerable small wires, called pins, so that the copper or metal should flow round the core, and, by its high degree of heat, fuse or melt the wires on its approach.

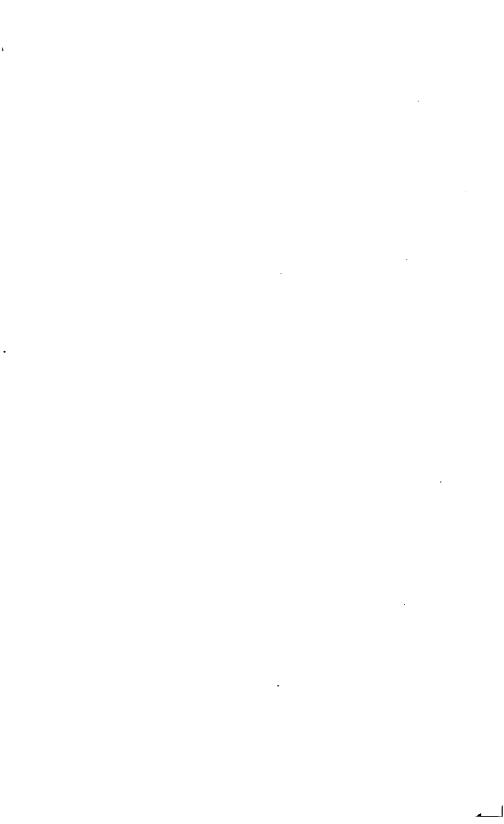
All things being now quite ready, and after a minute 1823. examination of the sand models, to be confident that every particle of the core and wax moulds was perfectly dry, the furnace of the tall chimney was charged with a proper quantity of the purest refined copper with a fraction of tin and zinc. I recollected reading of the alarming state in which Benvenuto Cellini found himself, on suspecting, at the moment of the casting of his Perseus at Florence, that he had not charged the furnace with sufficient metal (the sure forerunner of a failure), that he was that morning laid up with the gout, and that, in the height of irritation, he sent around to his neighbours, to buy, borrow, and beg, all their copper kettles, stewpans, saucepans, &c. I was determined that mine should not fail for want of this precaution, therefore I had two tons and a half put into the furnace. bellows were suspended, and worked by relays of men, without ceasing, during the time of fluxion, which I found took from eleven o'clock on the Thursday until seven o'clock on the Saturday morning. I then gave directions that the trial should be made, and the furnace tapped. Exactly at two o'clock on Saturday, the 2d of Oct., 1823, this decision of mine being made known, many persons of great respectability requested to be present. I endeavoured to persuade them from it, having heard of many instances, that, whilst the hydrogen gas was formed by the hot metal coming in contact with the damp sand (the sand having been carelessly dried), an explosion did in one case absolutely blow up part of the building. No remonstrance would do, and the cast-house was completely filled with respectable persons of both sexes; the metal, however, ran as pure as water, without accident or blemish. It took about four days to cool, and was found to be perfect.

1823. I have already mentioned that my modellers had alternately been modelling the statue of the King, and the four Venetian Horses, of their proper height, each being five feet four inches. Having understood that the attempt had never been made before. I decided to have them done after a novel idea of my own. I, therefore, obtained a small model of them; I made up my mind that they should be finished and mounted upon the pediment of my manufactory on the same day that the statue of his Majesty should be cast. This was effected to the astonishment of my fellow-townsmen, and as a critique of both was published on the 5th October, 1823, in the Birmingham newspaper, called the "Bazar, or Literary and Scientific Repository." I copy their remarks, which are as follow, in their paper of Thursday, October 9th, 1823:---

"New and Splendid Works of Art lately executed at the Manufactory of Mr. Thomason of this town.

## COLOSSAL STATUE OF HIS MAJESTY.

It is with infinite pleasure that we are called upon to notice the accomplishment of an undertaking which, as a work of art, reflects the highest credit on the individual under whose special direction it has been effected, and, if viewed in a liberal sense, adds no little to the enterprising character of the town; we mean, the completion of a Colossal Statue of his present Majesty, in real bronze, which, on Saturday last, was cast at the foundry belonging to the establishment of Mr. Thomason. The statue is in height between six and seven feet, and is, we are pretty well assured, the first that has ever been cast out of the metropolis of any kingdom. It is





The 6 Foot Copper Bronzed Statue of George 4." and supposed to be the 1." Statue ever Cast out of the Capital of any Empire in the World.

allowed, also, by men who have full knowledge of the art, 1823. to be a most perfect and beautiful specimen of casting. The King is represented in his robes of state; his position is marked by that ease, gracefulness and dignity, which so eminently characterize his manner; his right hand holds the sceptre, and his left is occupied in throwing back the folds of his robes. The likeness has been allowed to be most excellent by all who have witnessed the progress of the model; and standing, as it does, in all the majesty of truth, exhibiting a noble specimen of the near approach of art to the stamp of nature, and challenging the great works of the most eminent artists of every country, it presents a claim to regard the more especial, as it has been accomplished within a district where the united efforts of genius and labour may be supposed to have less play, and where, naturally enough, exertions of this nature may not be deemed likely to meet with an adequate reward. We have not heard where Mr. Thomason intends to place this memorable production of his genius and spirit.

## FAC-SIMILE OF THE CELEBRATED VENETIAN HORSES.

The most celebrated collections of Europe contain very few of those monuments of sculpture of which the ancient authors have given any account. The marbles brought from the Acropolis at Athens, by the Earl of Elgin, must be considered as forming the best assemblage; but amongst the most renowned of the remains of the art of sculpture which have been preserved, and which have commanded universal admiration, may be ranked the four Steeds commonly designated of Venice. For 300 years they occupied the attention of the ancient world: their history is somewhat remarkable:—

1823. They were from the hand of Lysippus, a native of Sicyon, in Peloponnesus, and who flourished about 325 years before the Christian era, in the age of Alexander the Great, in whose reign they decorated the Temple of the Sun at Corinth.

In the first year of the Christian era, the second Augustus of Rome gave the weight in gold for several statues of the work of Lysippus; and thus he came into possession of the famous horses.

Nero, the sixth Emperor of Rome, in the 54th year of the Christian era, placed them over a triumphal arch in his capital.

In the year 324, when Constantine founded the city of Constantinople, he took with him the four horses, where they continued the principal ornament of the Hippodrome.

In the 12th century, when the Venetians made themselves masters of Constantinople, they took possession of these statues, and placed them over the façade of the Church of St. Mark, at Venice.

In 1805, when the Emperor Napoleon conquered Venice, he had the horses conveyed to Paris, and placed them over the triumphal arch which separates the Court of the Tuilleries, from the *Place Caroussel*.

And in 1815, when the Allies entered Paris, they were restored to the Venetians, and at present occupy their old quarters at Venice.

It is extremely gratifying to us now to notice that the first attempt ever hazarded in making a fac-simile of these statues has been completed, in a novel style of workmanship, by the artists in Mr. Thomason's manufactory, under his immediate direction. Having ourselves been favoured with an account of the process

employed in the accomplishment of this attempt, we are 1823. enabled to lay it before our readers:—

The skeleton of the Horses were made partly of iron and copper, and thickly studded with metallic hexagonal starts. A compost made of the oxyde of iron and quartz was forced between, and surrounded the skeletons. The sculptor's chisel was then employed to shape the animals: a solution was next used, composed of oil boiled with the red oxyde of lead (whereby the oxygen is absorbed by the oil), with which the compost was copiously saturated, and in a few weeks it became hard by dessication. A coat of oleaginous acetate of lead was then employed, and afterwards a similar one of massicot, by which means they were prepared for the process of gilding, the which was richly effected with unalloyed gold.

Mr. Thomason, under the influence of a strong feeling of loyalty, determined on the elevation of these fac-simile statues to their intended situation on the very day that the cast of his Majesty was taken. This was accordingly done, and we are sorry to have to remark, that, in consequence of the size not being sufficiently dry, and of the quantity of rain which unfortunately fell during the following night, the gilding has been disturbed in a number of places, and the appearance of the figures is consequently much injured.

We understand Mr. Thomason does not intend to renew the gilding of them for the present, but to allow them to remain during the winter, in order to ascertain whether the atmospheric changes will make any important alteration in their constituent parts.

They stand about 5 feet 4 inches in height, and are liberally placed on the pediment, in front of his manufactory, thus furnishing an example of the progress of

1823. the Arts, and exhibiting a novel experiment in sculpture."

"14, South Audley Street, 13th Oct., 1823. "Dear Sir,

"It gave me great pleasure to read your \* success at Birmingham, but your remembrance made me rather ashamed of myself. Though late, I send you the sketch I drew up, some time since, from the scanty materials I could collect, relative to the Venetian Horses. You will perceive my opinion is not favourable to their being the work of Lysippus. As the little family affair you were so obliging to undertake for me is, I suppose, nearly completed, I could wish, not having made up my mind whether I will have arms or cyphers only engraved, that the silver part upon which it is proposed to introduce them should be indicated by a faint circle of dots, that we may know which part to apply to whenever I may choose to insert either. How goes on the great fountain? I have spoken of it to many of my friends, and particularly of the little temple. I should desire to see the whole cast in the same imperishable material from the plaster models so beautifully got up in France, and that a set were in every academy and collection of consequence in Europe. I beg my compliments to Mrs. Thomason, and am,

"Dear Sir, very sincerely yours,

Rich Westmanoth

"It has been generally admitted that the horses which now exist on the portail of Saint Mark, at Venice, were brought from Chios by the younger Theodosius, and erected in the Hippodrome, at Constantinople, in which place they were discovered 800 years after his death.

"They were originally gilt, and are cast chiefly or wholly of copper, that metal receving gold more readily than any other; and we may, from this circumstance, conclude that these horses were attached to a car.\* from being general to adopt gilding when so applied, and unusual on other occasions when the workmanship was held in estimation. By extraordinary good fortune these horses not only escaped the ravages of the many barbarous hordes which successively possessed Byzantium; the frequent fires to which that city, by a singular fatality, was exposed; but more particularly the cupidity of the Crusaders, who, in 1204, not only dispersed but nearly destroyed every object valuable in art, the French and Venetians being the chief actors in that spoliation. On the death of Dandolo, in 1205, Ziani was elected Doge, and those Venetians who were at Constantinople chose Martin Zeno, called Potesta, as their general, who, in 1207, sent these horses to Venice, reserved, most probably, as part of his booty. Some doubts have been suggested, from the similarity of the action of these horses with those upon a triumphal arch to a medal of Nero, that they are of Roman workmanship; but as chefs d'œuvres in art were often repeated, that objection need not shake Codinus' and other writers' authority;

A symbol of the sun.

1823. independent of which, Pliny makes no mention of them. That the horses in question are of Greek workmanship there can be little doubt, but no authority whatever exists for ascribing them to the hand of Lysippus; they either are not his work, or his reputation has been greatly overrated."

"Somerset Hotel, Strand, London, 22d October, 1823,

"Dear Sir,

"I had the pleasure to receive your letter, together with the box containing drawings of a Mint for Batavia, which I have little doubt will tempt the Dutch Government at Java to give an immediate order for a complete concern, including the rolling machinery, it being so much superior to the minting apparatus now used by them. Whatever negotiations may be entered into with our house at Batavia in respect to this shall be communicated direct to you.

I must apologize for the length of time I have suffered your letter to be unreplied to, but I was just on the point of starting for Scotland, where I have been travelling about till now. I am afraid I shall not be able to pay you another visit at Birmingham this year, as I must be on my way out to Java by the end of January. Please present my compliments to Mrs. Thomason, and believe me,

"Dear Sir,

"Yours very truly,

Morfor

<sup>&</sup>quot;Edward Thomason, Esq., Birmingham."

"Sir,

1823.

"I am happy in the opportunity of sending you the prints of the Capo di Monte and Acteon Vases. The first named is the largest Greek vase ever discovered; it is spoken of by Pausanius, and existed about two thousand years before the Christian era. The Acteon vase is curious for its high polish and preservation, and above all for the names of the principal figures being written over each in the ancient Greek character. The vases themselves belonged to the late Mr. Edwards, of Pall Mall, and now to his children. The large medal is the work of Bertaldi, of Florence—Mahomet II., the conqueror of Trebisond, Greece, and Asia; represented on the reverse as three female captives. The small medal represents Sixtus the IVth., the founder of the Vatican library.

"Should you not be in the way when the Rev. Mr. John Hutchingson leaves this place, I must beg you to give me a line acknowledging the receipt of the two medals. I beg your acceptance of the prints of the vases.

"Mr. Butt begs me to present his compliments, together with my own, to Mrs. Thomason and yourself.
"I have the honour to be, Sir,

"Your obedient servant,

(atherine Butto

"Shenthain, Stone, Staffordshire, Wednesday, Oct. 27, 1843."

1823.

"Foreign Office, London, 8th Nov., 1823.

"Gentlemen,

"Being appointed one of a committee of the Royal Humane Society to adjudge as to a prize medal, to be given under the will of the late Dr. Fothergill, as by the enclosed paper, I invite you to send in to me plans or designs for the said medal, apprising you that if your plan or design be approved, you will have to execute the same, and that the same will be given every three years.

"I reman, gentlemen,

"Your very obedient servant,

James Bardine

"Messrs. Thomason and Co."

"Birmingham, Nov. 21st, 1823.

"Sir.

"In compliance with your esteemed request, I have the honour to transmit you a design for the medal which the Committee of the Royal Humane Society require—'On the Prevention of Shipwreck, and the the Preservation of Shipwrecked Mariners.'

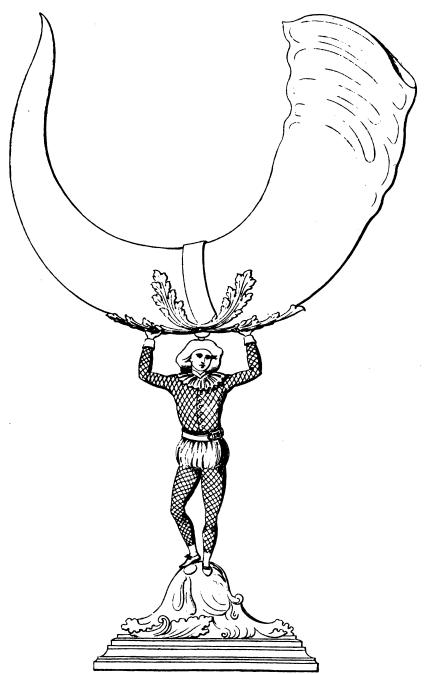
- "The allegory of the design represents a vessel in distress discharging an anchor from a cannon (Captain Manby's invention), and Britannia in the attitude of receiving it.
- "A light-house is seen as a beacon, and a life-boat puts off from the shore.
- "Offering you at all times my best services, I have the honour to be,

"Sir,

"Yours obediently,

" EDWARD THOMASON.

"To James Bandinel, Esq."



This Horn of the India Bull, called the Kettee Bull, an animal rarely seen, was presented to the Author by the Honorable M. Baber, one of the Judges of Hindoostan. The other Horn he presented to the Asiatic Society, the Length of the Horn is 2 great Jinches. The Girt, I foot & Inches, The Color and Lolish most beautiful.

"Dear Sir,

"I beg to acknowledge the receipt of the dollar, &c. I did intend paying you a visit prior to my leaving for Columbia. Since my return here, I have been so much occupied that I must return to London, and expect to embark on or about the 27th or 28th. I wish some further and more full explanation on the following:—

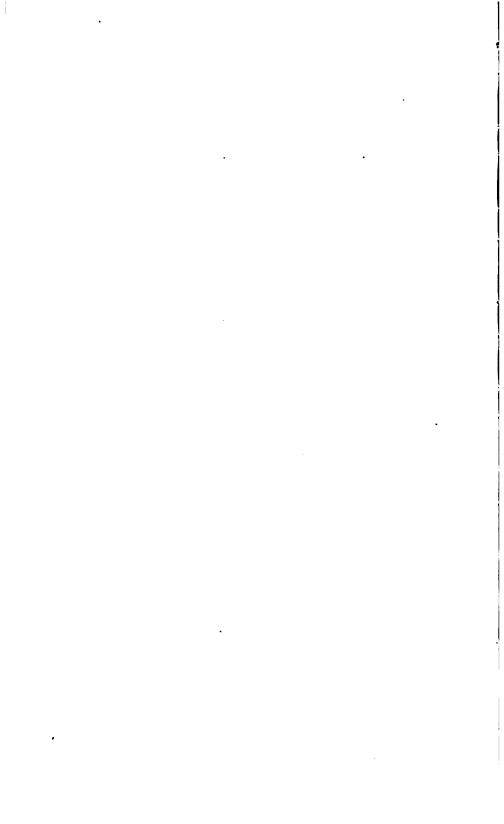
"Price of dollar, you say, at 4s. 6d. If you have calculated them at that price, and dollars should be remitted, they will not bring more than about 4s. 2d.

"What difference of price will there be between the dollar, half-dollar, and quarter dollar? or what quantity of each have you calculated at the price named? I suppose the smaller ones worth more than the larger in proportion?

"Have you calculated the expense of packing? Say what that expense would be, including carriage to the port of shipping. They will have to be packed in iron-bound boxes of 1000 dollars each, or in weight not to exceed 125 lbs. I must be prepared for all those necessary statements, as I shall be bound down close. Give me any information that may suggest itself to you.

"You omitted giving me your idea as to the probable cost of a mint, or what a mint would perform to cost about £5,000 fixed in that country.

"I wish at least one die of a dollar had been made, I would have paid the expense myself; I think it would have saved trouble. The drawings I sent you were not quite correct, I could not procure a dollar anywhere in London. I send you a small gold coin of the province of Popayan. This has the proper cornucopia, and





;

THE SALT CELLAR.



The Prussian Medal of Merit.

"22, Duke Street, St. James's, 1824.
Jan. 7th, 1824.

"Sir,

"In the Greek Committee we have always adopted the plan of a division of labour, and different departments, a plan which must appear natural to a manufacturer of your eminence. Your letter was therefore handed over to me, but only four days ago. The Greek Envoys return their own and their country's hearty thanks for your offer, which they accept; but they are unwilling to choose their hero. This is the first patronage they have had in their hands, and they fear the jealousy which a choice would create. Permit me to recommend you a dead hero, happily the only great man who has yet fallen, Marco Botsaris, (Μαρκυς Βοτσαρις) the most disinterested of all the Greek Captains. cannot get a drawing of him, but there is one in Italy, which I will enquire about. I can send you one of Canaris. This would, however, offend the Moreote as much as it would please the Hydriot party in Greece. Mr. Fricohl, a German, is publishing twenty-four portraits of Greeks distinguished in this revolution. Six are out, and I have them; but they are on a large scale, difficult to reduce, and none of them picturesque or classical heads, which that of Canaris is. The Deputies have requested me to suggest the emblems (if you want emblems) and mottos, which I did for the Committee's ΑΜΥΝΕΣΘΑΙ ΠΕΡΙ ΠΑΤΡΗΣ, from Homer, would do for Botsaris; ΟΠΟΙΟΣ ΤΥΡΑΝΝΟΥΣ ΔΕΝ ΨΗΦΕΙ, for Byron. It is the first line of a famous inscription on the sabre of Thonloghiannes (a Greek hero of the last century), printed in "Chants Populaires d la Grèce Moderne," vol. i. The inscription will, I

1824. hope, become better known, as I am about to publish a translation of Faceuil in verse, under the title of "Roman Anthology." If you take this motto, I should like to be informed of it, as, with your permission, I would mention your noble present in a note, with the hope of its example operating on the great and influential class to which you belong. Let me recommend for the motto capitals, they look better, and being more like our letters will make the medal, perhaps, intelligible out of Grece, and not pointed at the ends, but thus—EIE which looks more classical; capitals have no accents or spirits. Should you come to London, and could honour me with by a call, I should be proud to make the acquaintance of one who sympathizes with me in this great cause.

"I am, Sir, your obedient servant,

6B Pheridan

"By the *legend* round Byron, do you mean name, birth, death, &c.? Byron not being a Greek, it might be in *Italian*, much spoken in Greece and over all the Levant."

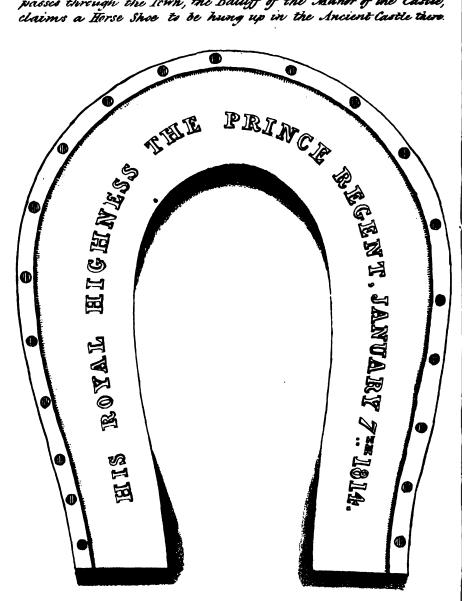
The Earl of Winchilsea called upon me with his Majesty's commands (George IV.), that I should make for his Majesty a copper bronzed horse-shoe, about seven feet in height, with an inscription round it near the *inner* extremity of the shoe,

HIS ROYAL HIGHNESS THE PRINCE REGENT, JANUARY 7TH, 1814.

I had a model made of a horse-shoe upwards of seven feet in length, and in due proportion and accord-



There is a Custom at Cakham, the Capital of the County of Rutland, that the first time any Prince of the Blood Boyal passes through the Iown, the Bailiff of the Manor of the Castle, claims a Horse Shoe to be hung up in the Ancient Castle there.



A DRAWING REPRESENTING THE HORSE SHOE OF COPPER BRONZED, J FEET IN HEIGHT, MANUFACTURED AT THE ESTABLISHMENT OF EDWARD THOMASON OF BIRMINGHAM, BY COMMAND OF HIS MAJESTY GEORGE THE 4TH TO COMMEMORATE THE DAY WHICH HIS MAJESTY PASSED THROUGH THE TOWN OF OAKHAM IN JANUARY 1814.

THE INSCRIPTION WAS IN EMBOSSED METALLIC LETTERS, RICHLY GILT, AND THE SHOE SCREWED UPON A CARVED POLISHED OAK BACK GROUND.

ing to the best opinion of our veterinary surgeons. It was 1824. cast in pure copper, and sculptured in the highest style a thing of the kind would admit of, with the nail holes, curve, &c., and the inscription was in large letters made of thick copper, and richly gilt, and with a screw at the back the whole were screwed through the horse-shoe; the horse-shoe was then fastened upon an inch and a half polished oak panel, about nine feet by six, delivered at Oakham, and is placed directly over the Crown Court in the ancient castle at Oakham.

There is a custom by which report says they hold their charter at Oakham, the capital of the county of Rutland, that the first time any prince of the blood royal passes through the town, the bailiff of the manor of the castle claims a horse-shoe, to be hung up in the hall of the ancient castle there as a memento. George IV. passed through the town on the 24th of January, 1814, on his way to Belvoir Castle, to stand godfather to the Marquis of Granby, son of the Duke of Rutland. The shoe by some reason was never petitioned for until 1824.

At this period the inhabitants of almost all the different states or kingdoms in South America complained of the want of silver coin for change. coin in these hot countries was not only laborious to carry, but the perspiration of the hands decomposed the copper, which emitted a very unpleasant smell. The exchequer in the different States was too low to create a new coinage of dollars; and as the people rejected both copper and paper notes, I was written to to know if any plan could be devised to issue plated dollars instead of silver, which would have the appearance of the real silver dollar, nevertheless with a peculiar mark stamped upon them that they were issued for the convenience of

the State, but would be taken back on the seventh year, and exchanged for real ones.

It was very evident to any manufacturer of coins and medals that blanks for coins could be cut out of rolled plated metal—plated on each side, but then the extreme edge of the piece would be red copper. It struck me, after much consideration, that in those pieces, &c., cut out in blanks with red copper, the edges might be covered with silver of such a thickness as would last at least seven years without wearing through.

I accomplished it by the following mode:—From sheets of thin rolled pure silver I cut circles of the dimensions of the coin—say the dollar; this circle was by a lathe neatly turned over; it was then put into the collar of the dies; the force of the press was applied; the blow brought up the impression of the dollar, and the concussion fastened the silver to the edge of the dollar, and at the same time milled the edge. In appearance there was no telling this from the real dollar. The one sent me to copy was for the Central State; the Obverse was the Tree of Liberty; the Legend, LIBRE. CRESCA. FECUNDO NC. NI. 10DS. 20GS. The Reverse, the Rising Sun emerging from behind the Mountains; the Legend, REPUBLICA. DEL. CENTRO DE AMERICA, 1824.

It was impossible at *sight* to tell these dollars from the real silver ones; the specific gravity, however, would detect them, also the sound of the ring. I obtained his Majesty's letters patent for the invention; and I was in treaty to give seven millions of these for one million of real. The Governments highly approved of the idea; but the people could not put faith in the *stability* of the respective Governments, so, at last, all the trouble, expense, and invention, went for nothing.

This year I made for Mr. Lambton a real copper 1824. bronzed copy of the Parthenon at Athens, on a mathematical scale, which was highly approved.

"Royal Humane Society's House, 29, Bridge Street, Blackfriars, 12th May, 1824.

"Sir,

"I have much pleasure in transmitting to you the accompanying unanimous resolution of thanks of the Committee, held the 21st ult.

"I have the honour to be,

"Sir,

"Your most obedient servant,

John Montin M.S.
"Registrar and Secretary.

"E. Thomason, Esq."

## "ROYAL HUMANE SOCIETY.

"At a meeting of the Committee held at the Society's House, 29, Bridge Street, Blackfriars, on Wednesday, the 21st day of April, 1824, Benj. Hawes, Esq., Treasurer, in the chair; upon the recommendation of the Select Committee appointed to apply for, and receive designs for a prize gold medal, to be given by the Society for the best Essay or Discovery (to be approved by them) on the Prevention of Shipwreck, and the Preservation of Shipwrecked Mariners,

"It was unanimously resolved, that Mr. Thomason be requested to accept the thanks of this Committee for the trouble he has had in furnishing designs for the 1824. prize medal, and for the interest which he has taken in the subject.

Benj Houves

"Chairman."

Some months since Mr. Turnerelli brought a letter of introduction to me, and he being a professor in sculpture I paid him every attention; he then was desirous, at his own expense, and for his own studio, to make a model of my bust; I declined the honour positively, against his earnest entreaties, and I assured him it could not possibly answer his purpose, and at the same time that it was rather objectionable to my views. I was, therefore, surprised at the receipt of his letter of the 28th of May, the proposal in which I, of course, declined to act upon.

"Dublin, May 28th, 1824.

"Dear Sir,

"I have had the pleasure to receive your letter of the 24th instant, and many thanks for your friendly attention in writing.

"I expect to leave here for England on Sunday evening, and hope to arrive in Birmingham some time on Tuesday, when it is my intention to devote two days to the object decided on. You will, therefore, have the goodness, on receipt of this, to procure about one hundred weight of soft pipe-clay, which may be kept moist by covering it with wet cloths, also a board twelve inches square, and one and half thick, with two ledges

at bottom one inch thick, and one inch from each end, 1824. with a peg in the centre of the board one inch in diameter, and fifteen inches high. The clay and board being ready, I shall not have occasion to lose an hour in commencing what will gratify me very much in accomplishing before I leave Birmingham.

"With respectful compliments to Mrs. Thomason, I remain, dear Sir,

"Your very obedient servant,

P. Turnerelle

"Paris, le 22d Juillet, 1894.

"Monsieur,

"J'ai évité de vous voir pendant votre séjour à Paris parcequ'on m'avait dit que vous vouliez me faire un procès, et comme je ne les aime pas j'ai voulu m'en épargner les désagrémens; d'autant mieux que vos reclamations ne sont pas justes, je vous ai envoyé un contrat que vous avez signé, et que j'ai encore pour faire avec vous, une entreprise de médailles. Vous avez prétendu, quoique les termes en fussent très éclair, que nous nous étions mal compris, et que vous ne vouliez pas y donner de la suite, et là dessus vous établissez un compte qui a singulièrement varié, car d'abord il ne s'en porté qu'à six livres sts. pour faire de port de lettres, et de transport des coins; vous avez fait retirer des poinçons de ces creux; vous avez fait graver des revers; frapper des médailles, et finalement vous me demandez à présent 36 guinées. Je vous répondrai, que je ne vous avais pas demandé tout cela, et que puisque nous n'étions pas d'accord il ne fallait pas m'engager à des dépenses. Je vous avais envoyé, par Mr. Beranger, un

- 1824. poinçon du Duc de Wellington et un de Napoleon pour faire une médaille, vous n'y avez pas manqué. J'ai une de ces médailles en ma possession, et vous ne m'en avez dit un mot. Vous conviendrez, Monsieur, que cela donne peu de confiance; à présent il faut mettre toutes ces plaintes de coté, et prendre un parti. Je vous propose de vous remettre une multiplication de toutes les médailles qui formeront ma collection des grands hommes de toutes les nations aux conditions suivantes. Savoir—
  - "Art. 1.—Je fournirai d'ici, au premier Janvier prochain, en cinq livraisons, un coin et son revers, des cent sujets de médailles qui sont déjà gravées, et il me donnera en payement — médailles qu'il s'engage à me faire rendre en bon état à Calais.
  - "Art. 2.—Après que ce nombre de médailles auront été livrées, Mr. Thomason deviendra propriétaire des dits coins, et en disposera comme chose lui appartenant, en promettant, cependant, de ne pas expédier sur le continent des médailles ni multiplications des dits coins.
  - "Art. 3.—Je remettrai à Mr. Thomason, aux mêmes conditions, une copie des coins de toutes les médailles que je ferai graver, et qui feront partie de cette collection.
  - "Art. 4.—Je remettrai les coins à Paris au correspondant de Mr. Thomason.
  - "Art. 5.—Les médailles que Mr. Thomason doit me livrer en payement de mes coins, seront livrées comme il en dit à l'article premiere—dans trois mois à compter du jour de la remise que j'aurai faite des dits coins.
  - "Si ces conditions vous conviennent, Monsieur, chargez Mr. de Walmar de terminer cette affaire, mais je vous prie de lui donner vos ordres bien precis, pour qu'il n'y aie plus de mal entendu.

"Je n'ai pas parlé de la quantité de médailles que vous aurez à me fournier pour chaque carré; je vous on avait demandé mille pour ma première convention. Je consentirai à faire une réduction mais qui ne pourra pas être bien grande, sachant très bien à combien les médailles doivent vous revenir de fabrication.

"Je vous prie de m'envoyer, par le retour de Mr. de Walmar, les médailles qui ont été frappées du six premiers coins que je vous ai envoyées, il y a déjà long temps. S'il a été frappé en Angleterre une médaille du Docteur Jenner, inventeur de la vaccine, ayez la bonté de me l'envoyer.

"Je vous prie de me répondre par Mr. de Walmar; en attendant de vos nouvelles je vous prie de me croire,

"Votre très humble,

"Et très obeissant serviteur,

Durand

"Rue Haute Ville, No. 17."

In William Knighton

presents his compliments to Mr. Thomason and is greatly obliged by his sending a sketch of the statue of the King, the attitude and execution of which (as far as Sir William can judge by a drawing), are in great beauty and perfection.

Carlton House, 24th July, 1824.

1824.

Carlton House, 5th August, 1824.

"Sir,

"The Prince de Schonbourgh wishes to see your manufactory, and will feel much obliged if you will conduct him through all the curious manufactories of Birmingham. I can only add that any attention you will show his Highness will be greatly valued by his Majesty.

"I am, dear Sir,

"Yours very truly,

In January this year, Mr. William Doveton, of St.

Helena, the President of Council, came with a letter of recommendation to me from the house of Bruce, De Ponthieu, Basset, Crawford, and Co. Although Mr. Doveton was then fifty-five years of age, it was the first time he had left the island, never having seen any large town before he arrived in England. He only stayed in London three days, as he was desirous to place, without delay, his consumptive daughter at Leamington Spa, Warwick; hence his immediate visit to Birmingham with some other branches of his family, and whilst we were sitting at luncheon one morning, a heavy snow fell, when Mr. Doveton and his family, with much astonishment, said it was the first time that they had ever witnessed a snow shower. I was delighted with his historical knowledge, and gentlemanly manners. The manufactories, and gigantic steam engines, &c., &c., in Birmingham, quite astounded him. On attending him to the establishments, I placed him always in my open carriage that he might

see the town; he, however, became nervous at every 1824. carriage which passed us in the street, being alarmed lest the carriages would upset each other, for they had not any roads for carriages at St. Helena. He was full of anecdote about Bonaparte, to whom he lent one of his houses until a better could be got ready. On his return from Birmingham to London, he visited the King at Windsor, who, on meeting him in the gallery, commanded the officer or warden to give him his sword, when his Majesty knighted him.

During the greater part of this year, I was engaged in casting and putting together a metallic fountain, for the Earl of Shrewsbury. It was an iron Chinese (fountain) Pagoda, of six stories in height, eight sided or octagonal, the screen all of beautiful cast iron open work; a staircase wound around the pillar which went up the centre, and which enabled persons to land out upon the floors, and under the graceful awnings of each story. The screens in each octagon part were of elegant metallic network; the centre tube was six inches in diameter, and carried up the water which was to run above the neck of the whale about six feet in a column, but falling on all sides around, and from roof to roof, which roofs were of copper gilt with bells. The outside of the pagoda was to have been painted "á la Chinois." It was to be placed in the centre of a pool in the extensive and unique flower gardens at Alton Towers, and the fountain was to have been fed by streams from the adjacent hills, the right of which streams his Lordship was in treaty for. His Lordship was deceived in the quantity of water reported to him, and although two stories were finished of this extraordinary iron moulding, it was abandoned. after much expense had been gone into, to the regret of

1824. his Lordship and many of the nobility, who looked forward to its completion and singularly novel effect. The height of the whole, including the mouth of the whale, was seventy-two feet, and the expense about £4,000.

## "Carlton House, 17th Jan., 1825.

"Dear Sir,

"I this morning received your beautiful bronze medal of Walter Scott, to whom I had the honour of an introduction a few years back. And I therefore feel warranted in saying that the representation is perfect.

"As a work of art, I consider it far surpassing all your former efforts of this class; and I very sincerely congratulate you upon this fresh display of taste and talent.

"I remain dear Sir,
"Your very sincere and faithful servant,

The manable

"I have delivered into Sir William Knighton's hands the packet addressed to him.

"E. Thomason, Esq."

"Carlton Palace, January 19, 1825.

"Sir,

"I am honoured with the commands of the King, to convey to you his Majesty's gracious approbation of the medal struck in honour of Sir Walter Scott.

"I am further commanded to express to you his 1825. Majesty's deep sense of your dutiful attention.

"I have the honour to be,

"Sir,

"Your faithful servant,

Minighton

"E. Thomason, Esq."

"Downing Street, March 2, 1825.

"Sir,

"Mr. Robinson has been too much occupied for the few last days to have the pleasure of seeing you; but if you will be so good as to call here to-morrow or the next day at twelve, you will find him at liberty.

"Your obedient servant,

Meghow heliky

"Stockholm, 14th April, 1825.

"Sir,

"I have the pleasure to acknowledge the receipt of the beautiful medals of Canova and Walter Scott, that you have had the kindness to send to me, through my friend, your worthy and estimable Minister at this Court.

"General Bloomfield delivered them to me an hour ago, and immediately on their arrival; and I beg you to believe that no present could have been more welcome, and from every consideration. 1st. The halo that surrounds the fame and name of the illustrious subjects.

1825. 2d. The beautiful execution of the pieces. 3d. The kindness that dictated this classic souvenir.

"I pray of you, Sir, to receive my sincere thanks for this mark of your kind recollection; and I especially entreat you to retain and to cherish the friendly feelings and recollections that prompted you to pay me so acceptable a compliment. You may rest assured that I shall never be in England without availing myself of the opportunity of renewing our personal acquaintance, if I be within what is called 'striking distance.'

"I am about to make one little remark, which may show great ignorance in medallic lore; but I am sure you will pardon whatever is well meant. I think that after a name, an inscription, a motto, or any phrase, there should be a period marked, ex. gr. instead of

Truths severe in fairy fiction dressed

It would be more perfect to write,

Truths severe in fairy fiction dressed.

So instead of

Walter Scott

I would say,

Walter Scott.

And also on the reverses, and after the numbers, I would always place a (.) This would make the grammar more perfect, and give a more finished air to the work. But this is mere punctual perfection, and you may think my extreme punctilio an impertinent return for the honour and compliment you have paid me; if so, I beg your pardon.

But I ask you, in a work of the arts, if anything, the very minutest point, should be overlooked or omitted? You are too well known for the genius that presides over your great establishment, and the grace that abounds in

your works, to make me fear your taking this suggestion 1825. ill from a person who remembers you with the highest respect and satisfaction.

"I am, Sir, very truly yours,

Augher

- "N.B. The above noted circumstance is a very common error in medals, and impairs their finish, as it certainly does their grammatical propriety, as far as punctuation is necessary to it.
- "P.S. Pray remember me to Mr. and Mrs. Van Wart.

"To Mr. Thomason, &c. &c."

"Leeds, 10th May, 1825.

"Gentlemen,

"In the month of February, 1824, I had the pleasure of inspecting part of your works, and among other things I observed a statue of his present Majesty in bronze.

We are at present in this town entering into a subscription for the purpose of erecting a pedestrian statue of the King to be placed in the Market Place, and I shall be much obliged if you will inform me of the probable cost of one, the size equal to give proper effect at the top of a street 100 feet wide, and about one-third of a mile long. Waiting your reply,

"I am, Sir,

"Your most obedient servant,

John Cawood

"Messrs. Edw. Thomason & Co."

1825.

"London, 10th June, 1825.

"Dear Sir.

"His Excellency Count Golowkin left this place, together with Prince Radzivil, for a tour through England, beginning with Oxford, and my servant was too late to deliver him the enclosed letter, which contains also a letter of recommendation from me to you. Will you have the kindness to send, immediately on receipt of this, to two or three of the first inns at your place, with a view to have the enclosed letter delivered to the Count on his arrival. It is my duty to recommend both these personages to your particular attention, being both noblemen of the first rank in Russia.

"In haste, I remain, dear Sir,

"Yours, &c.,

"Russian Vice-Consul."

"Birmingham, 30th June, 1825.

"My dear Sir,

"I regret that my being on the wing, proceeding rapidly to Ireland, prevents my having the pleasure of shaking hands with you. I beg your acceptance of a set of Laborde's Views in dear, delightful, but ill-fated Spain; the scenes are very accurately delineated, and the style of the letter-press is good.

"Excuse haste, and believe me, my dear Sir,

"Very truly yours,



Cupid overturning the Globe, executed at Paris, the figure is in the interior of a large square Muss of Chrystal Glass.

Presented to the Author.

"Sir,

"I must apologize for having neglected so long a most pleasing duty, namely, that of returning you my most cordial thanks for your very polite attention to Prince Radzivil and Count Golowkin, during their short stay at your place. Both these gentlemen did request me, before they left London, to assure you that they were fully sensible of your marked attention to them, and begged of me to express to you their grateful acknowledgement for the same.

"The present will be delivered to you by his Highness Prince Rasomowsky, who is travelling with the Princess and her sister. Permit me to recommend them to your usual politeness, and to request that you will be kindly pleased to obtain admissions for them to see every thing in your town and neighbourhood that may interest a foreign traveller.

"I avail myself of this occasion to reiterate to you my high esteem and regard, with which I have the honour to be,

" Sir,

"Your most obedient servant,

Virue Sotorhary presents his com-

pliments to Mr. Thomason, and begs him to keep the enclosed letter till Prince Schwarzenberg calls for it.

Chandos House, December 4th, 1825.

1825 "My dear Sir,

"Will you be so good as to remember me to Mrs. Thomason, and give her the enclosed specimen of the King of France's hand-writing which I promised her when I had the honour of seeing her.

"I have the honour to be,

"Dear Sir,

"Your very obedient humble servant,

Letter decares

" Dear Sir,

"Since I left you, after our short interview, I have thought much on your friendly proposal of a medal, and have experienced alternate doubts, fears, &c., whether it may not, on my part, be deemed arrogance in aspiring to such a distinction; still, from the number of pupils I have had, and the probable increase I may have, on account of your fame and interest, have become more reconciled to the event; but the 'reverse,' in my idea, concentrating in the medal, more importance than the 'obverse,' I have turned my mind with some earnestness on that subject, and, with all submission to your better judgment and experience, conceive that a 'female figure,' with light drapery, representing . 'Silence,' arms extended in the act of unloosing the bandage from her lips (rather open), with a visage representative of 'Joy,' her 'right foot' in the act of stepping upon a 'Globe,' with 'Great Britain' indented as the 'first place' of the 'discovery;' would be rather symbolic of the intention of the medal, with, round the circle, 'Discoverer of the System for the (effectual) removal of Impediments of Speech.' Perhaps this may be 1825. too long; that I leave to you. Round the head, 'John Broster, F.A.S.E., M.DCCC.xxv.' Now, my dear Sir, I trust no motive, beyond a strict conviction on the propriety of this undertaking, will lead you to the adoption of it; and, with great respect and esteem, after so transitory an interview, permit me to subscribe myself,

"Your faithful friend,

"And humble servant.



"32, Lower Brook Street, Grosvenor Square, "London, Dec. 4, 1825."

"P.S. I write from your inkstand, and I assure you with the highest approbation of its construction and comfort. I expect to be in my own house next week, near Grosvenor Place, but address as above if you write. I have just received your letter, and shall, as soon as I can, attend to its contents; but I think this answer for the present will suffice."

"Paris, January, 1826.

"Sir.

"When I had the honour of seeing you in Paris, you were so obliging as to promise me your kind offices in your country. An occasion now presents itself and I take the liberty of availing myself of your kind offer. I have engraved some dies for a medal which Mr. Hortado ordered of me. As they are to be exe-

1826. cuted in England, where Mr. Hortado is, and knowing in what perfection everything comes out of your workshops, I advised him to address himself to you, Sir, for the purpose of getting these medals struck. The conditions of our agreement with Mr. Hortado are, that before I am entirely paid for the dies, fifty medals are to be struck with them.

"As I think that your fabrication is performed in the same manner as ours, the trial may be easily made as soon as Mr. Hortado will have given you the dies, which are properly tempered.

"If I dare beg of you, Sir, to send me word when the fifty medals are struck, it would greatly oblige me. I should be happy to be of any use to you in this country; you may confidently dispose of me; I shall always be eager to serve you.

"Be pleased, Sir, to accept my very humble salutatations and the homage of my respects.

Bernga

"- Thomason, Esq., Birmingham."

At this period (March), I had been trying, at some expense, some experiments to produce the effect of enamelling on copper. I completed a very large size metallic bowl, on the outside of which was an historical coloured device, and the inside was richly gilt and burnished. I found the idea was too expensive to succeed; the effect of this bowl was, however, beautiful, and appeared novel in the arts; I therefore, for its singularity and being unique, sent it, through his Excellency Lord

Strangford, with a petition to his Imperial Majesty to 1826. accept it.

"London, the 1st March, 1826.

"Dear Sir,

"Your letter of the 23d ult. was only left at the Consulate yesterday, and I hasten to inform you that if the package in question for Lord Strangford is of a size that a messenger may take charge of it, you may send it to the Foreign Office in Downing Street, recommending it to the care of Thomas Bidwell, Esq., at the Foreign Office. I have seen this gentleman, and he has promised to forward it with the first messenger. Should the package, however, be too large for a messenger, and that it must be sent per ship, you will please to address it to the care of Mr. Niven Kerr, Turkey merchant, 5, New Broad Street, London, who is Lord Strangford's agent.

"Requesting that you will always please to dispose of my services without reserve, I avail myself of this opportunity to assure you of my high regard and esteem, with which I remain,

"Dear Sir,
Your most obedient servant,

MInkhaunz S

"Edward Thomason, Esq., Birmingham."

"Bushy Park, 27th October, 1826.

"Sir.

"When I had the satisfaction of visiting your interesting and curious manufactory, about four

1826. years since, I noticed a copper medal struck by Buonaparte at the time of his intended invasion of this country. I was informed that the original die was authentic, and that you had made one from it.

"I have since collected all the crown (five franc) pieces struck from Louis XVIth's reign to Charles Xth, including the various States created by the French in Italy, Germany, &c. (in number thirty-seven), and I shall not consider the series complete unless I can procure one of *Hercules strangling the Hydra*, in *silver*, to match with the rest. I should be grateful to know what would be the expense of striking one for me, as I feel satisfied you will with pleasure add your assistance to perfect so interesting a collection.

"I always conceived that the coin was really made by Buonaparte's order, and should feel obliged if you would, in your answer, authenticate its genuineness.

"My only apology for taking this liberty is a belief that your attachment to the arts will make you at once appreciate my wishes and excuse my intrusion.

"I have the honour to be,

"Sir,

"Your obedient servant,

Lt.-Colonel."

"Sir.

"My father having been absent, I have refrained from thanking you for your obliging attention to my wishes. I find the medal beautifully executed, and 1826. highly valuable from the anecdote you mention as having had yourself from Denon.

"I have not asked my father respecting the other part of your letter until I know under what circumstances, and by what means, it might be done. His Royal Highness particularly dislikes sitting for his picture, and, I fear, a similar operation would be required for the model you desire.

"I have no other means of forwarding the money, in return for the favour you have conferred upon me, but by a draft.

"I have the honour to be,

"Sir,

"Your obedient servant,

L'Clavere

" Bushy Park, 18th Nov., 1826."

At this period I finished a pair of medal dies, of the largest class, to commemorate the foundation of the London University.

On the obverse was the College or University,

On the legend, round, "Design adopted by the Council for the University of London, 1826."

On the reverse—Council.

Hon. James Abercrombie, M.P.

The Right Hon. Lord Auckland.

Alexander Baring, Esq., M.P.

George Birkbeck, M.D.

Henry Brougham, Esq., M.P., F.R.S.

Thomas Campbell, Esq.

1826. The Right Hon. Viscount Dudley and Ward.

Isaac Lyon Goldsmith, Esq.

Olinthus G. Gregory, L.L.D.

George Grote, jun., Esq.

Joseph Hume, Esq., M.P., F.R.S.

Most Noble the Marquis of Lansdowne, F.R.S.

Zachary Macauley, Esq., F.R.S.

Sir James Mackintosh, M.P., F.R.S.

James Mill, Esq.

His Grace the Duke of Norfolk.

Lord John Russell, M.P.

Benjamin Shaw, Esq.

John Smith, Esq., M.P.

William Tooke, Esq., F.R.S.

Henry Weymouth, Esq.

John Wishaw, Esq.

Thomas Wilson, Esq.

The legend, "Language, Mathematics, Physics, Mental Science, Moral Sciences, History, Political Economy, Medical Sciences."

## Grand National Medals, struck off at Sir Edward Thomason's Manufactory.

The obverses containing the likenesses of Earl Howe, Earl St. Vincent, Lord Duncan, Sir Sidney Smith, Lord Abercromby, Lord Hutchinson, Lord Nelson, Sir John Moore, Duke of Wellington, Lord Beresford, Lord Hill, Sir Thomas Picton, Duke of York, Lord Lynedoch, Prince Regent, Duke of Cambridge, Marquis of Anglesea, Napoleon Buonaparte, Lord Exmouth, George the Third, and Lord Combermere.

1. The Victory over the French Fleet by Lord Howe off Ushant, May, 1794.

- 2. The Victory obtained over the Spanish Fleet by 1826. Lord St. Vincent off Cape St. Vincent, 14th February, 1797.
- 3. The Victory obtained by Lord Duncan over the Dutch Fleet off Camperdown, October 11, 1797.
- 4. Sir Sidney Smith. Acre defended, Buonaparte repulsed, Syria saved. 20th May, 1799.
  - 5. Sir Ralph Abercromby-Egypt, 21st March, 1801.
- 6. Lord Hutchinson—delivery of Egypt from the French, 31st August, 1801.
  - 7. The Scottish Soldier in his Military Accourrements.
- 8. The Genius of the Ocean planting the British Flag of Power at Bombay—Captain Dance, 1804.
- 9. Lord Nelson's Victories over the French at the Nile, 1st Aug., 1798; over the Danish Fleet at Copenhagen, 2d April, 1801; and over the combined French and Spanish Fleets off Trafalgar, 21st October, 1805.
- 10. Death of Sir John Moore at Corunna, 16th Jan., 1808.
- 11. The Arrival of the British Army in the Peninsula to assist in expelling the French from Portugal, 1808.
- 12. The Battle of Vimiera and the occupation of Lisbon, 11th September, 1808.
- 13. Passing of the Douro and the defeat of Soult, 11th May, 1809.
  - 14. Victory of Talavera, 28th July, 1809.
- 15. Passing the Lines of Torres Vedras, 1810—the Duke compared to the Roman General Fabius.
  - 16. Victory of Albuera, 17th May, 1811.
- 17. The Fort and Bridge at Almarez destroyed, Nov., 1811.
  - 18. Badajos taken by Storm, 6th April, 1812.
  - 19. Battle of Vittoria, June 21, 1812.

- 1826. 20. The Battle of Salamanca, and the entrance of Lord Wellington and the Army into Madrid on the 12th of August, 1812.
  - 21. Battle of the Pyrenees, 2d August, 1813.
  - 22. Presentation of the Colours to the Military College by the Queen, 12th August, 1813.
    - 23. Capture of St. Sebastian, 7th Oct., 1813.
    - 24. Surrender of Pampeluna, 31st. Oct., 1813.
  - 25. Battle of Toulouse in France, and Capture of the Town, 10th April, 1814.
    - 26. The Repose of Hercules, 1814.
    - 27. England gave Peace to the World, 1814.
    - 28. Treaty of Paris, 30th May, 1814.
  - 29. Visit of the Allied Sovereigns to England, 6th June, 1814.
  - 30. Entry of the English into Hanover, 24th Oct., 1814.
  - 31. Flight of Napoleon from Elba and his landing in France, 1st March, 1815.
  - 32. The Bull, the common animal of the Netherlands, and the peculiar buildings of Brussels denote the British Army in the Netherlands, 1815.
  - 33. Charge of the Marquis of Anglesea on the 18th of June, 1815, at Waterloo.
    - 34. Battle of Waterloo, 18th June, 1815.
    - 35. The English Army enter Paris, 7th July, 1815.
  - 36. Surrender of Napoleon to Captain Maitland, 15th July, 1815.
  - 37. Napoleon sitting pensively on the Island of St. Helena, 18th Oct., 1815.
  - 38. The Ionian Islands delivered up to England by the Emperor of Russia, 5th November, 1815.

- 39. Reduction of Algiers, August, 1816, by Lord 1826. Exmouth.
- 40. Religion, Integrity, and Constancy have steered Britannia through all her dangers, 1817.
- 41. Lord Combermere—Capture of Bhurtpoor, Jan., 1826.

"Horse Guards, January 13, 1827.

"Dear Sir,

"I have just received the handsome medal which you have had the kindness to send to me, commemorative of the late Duke of York, and I beg of you to accept of my best thanks for this mark of kind and respectful attention.

"I remain, dear Sir,

"Yours sincerely,

1827.

"Edward Thomason, Esq., Manufacturer, Birmingham,"

"Bushy House, Jan. 14, 1827.

"Sir,

"In answer to your letter of the 11th inst., I have been directed by the Duke of Clarence to assure you that he is very sensible of your attention on the present occasion. His Royal Highness is pleased further to observe that the medal is a good likeness, and appears to be well and neatly executed.

"I am, Sir,

"Your obedient servant,

Manull

"To E. Thomason, Esq., Birmingham."

1827.

Lio Wiliam Smighton

presents his best compliments to Mr. Thomason, and begs to thank him for his kind attention in sending him a silver medal of his late Royal Highness the Duke of York.

January 18, 1827.

Lio Wiliam Knighton

has had the honour of laying at the King's feet Mr. Thomason's medal of his Royal Highness the late Duke of York. His Majesty was graciously pleased to express his sense of Mr. Thomason's dutiful attention.

Royal Lodge, Windsor, 18th January, 1827.

In consequence of the death of his Royal Highness the Duke of York, who held the high appointment of Commander in Chief, his Majesty immediately conferred that honour on the Duke of Wellington, and in a letter written by his Majesty, and addressed

"To Field-Marshal the Duke of Wellington, Commander in Chief of his Majesty's forces, the great and distinguished General who has so often led the armies of the nation to victory and glory, and whose high military renown is blended with the history of Europe.

" By his Majesty's command,
" HENRY TORRENS, Adj. Gen.

"Horse Guards, Jan. 22, 1827."

This appeared in the Gazette of Jan. 22, and the same evening in the Courier paper, which arrived in

Birmingham on the following morning at eight o'clock. 1827. The short and pithy letter of the King gratified all loyal The Courier paper came into my hands in about a quarter of an hour after its arrival. It immediately struck me that my die-sinkers could, in seven hours, put a copy of this letter of the King on a reverse die, to correspond with the fine obverse die which I had lately made of the Duke, and that it should arrive at Apsley House at eight o'clock in the morning. All was bustle in the medal department, die-sinkers standing in readiness with hammer and tools, changed their seats every ten minutes, during which time the obverse side of the medal was being pressed in silver, leaving the

The reverse die was finished at six o'clock; the die hardened and lapped by seven. The fine two-and-aquarter inch medal was finished at half-past seven, and the packet for the Duke placed in the mail guard's possession at quarter before eight, and a present to the guard to drive by Apsley House, and deliver the packet. This was done, and the Duke utterly astonished. "What! in forty-eight hours, the King's appointment is struck upon imperishable metal, and placed in my hands. How can this thing be? I comprehend—quickness of conception, rapidity of thought, the division of The circumstance was communicated to George IV., to whom I sent a medal. His Majesty remarked, "This is worth recording."

reverse for the last blow.

"Haverfield, Jan. 30th, 1827.

The Suke HWelleyton

presents his compliments to Mr. Thomason, and is much obliged to him for the medal which Mr. Thomason was so kind as to send him. The Duke will be much obliged to Mr. Thomason if he will send him another medal of the same material, and one made of bronze.

"Mr. Thomason, Church Street, Birmingham."

"London, January 31, 1827.

"Sir,

"In answer to your letter of the 17th inst., I have to inform you that the box containing a vase for the Emperor Nicolas (which did not arrive until three or four days before my departure from St. Petersburgh), was left, together with the letter addressed by you to his Imperial Majesty, at the house of Count Nesselrode, the Minister for Foreign Affairs.

"Mr. Disbrowe is now acting as his Majesty's Minister Plenipotentiary at St. Petersburgh, and I shall advise you to request that gentleman to ascertain from Count Nesselrode whether the box and letter have been presented to the Emperor.

"I am, Sir,

"Your obedient servant,

Theyfun

"Mint Office, 6th Feb., 1827.

1827.

" Dear Sir,

"I have had the pleasure to forward your application for a set of the new coins to the Master of the Mint, whose order, under his own hand, is required before we can deliver the specimens. I have annexed my recommendation to the application, knowing you have a collection, and have mentioned to Mr. Wallace the science and judgment you possess about the numismatic art. As soon as the order is obtained you will be informed, and the coins may be delivered to your agent on paying the value at the Mint.

"Believe me, dear Sir,

"Very truly yours,

fact Morrison

"Edward Thomason, Esq."

"Park Lane, Friday evening, March 23, 1827.

"Sir,

"On returning to town this morning I found the very handsome and well-executed medal you have been good enough to present to me. As a member of the Council of the London University, I should have been gratified by such a merit of attention from any quarter; but it gives me still more satisfaction as coming from one of the most spirited and ingenious manufacturers of the town of Birmingham, in the credit and prosperity of which I take so strong an interest.

"I am, Sir,

"Your obliged and obedient humble servant,

Dudley.

"Sir,

"There will be required 100 Corinthian capitals for the Palace at Buckingham House—the model will be that of the capitals on the inside of the Pantheon at Rome, and the diameter of the columns at the base will be sixteen inches. The abacus and bell of the capitals will be statuary marble, and the leaves, scrolls, and other ornaments of the capitals, will be of metal firmly fixed to the statuary bells. If you are disposed to send in proposals for executing them, and will send the price for the capitals complete, except the marble, and a specimen of the metal, should the metal be approved by the King, and the price in competition be the most reasonable, I shall be induced to recommend the adoption of them.

"I am, Sir,

"Your obedient servant,

Instant

"E. Thomason, Esq."

"Birmingham, April 11, 1827.

"Sir.

"In compliance with your esteemed permission, I have the pleasure to forward you by this day's coach (the carriage paid), a box containing five specimens of the acanthus leaf, &c., part of a Corinthian capital composed of three different colours, and although they are not of the size you require and mention, they may do as specimens of the sculpture and workmanship for your approval.

"Presuming that you will require everything for the Palace finished in a superior style of workmanship, I have done these patterns to that end. On the back of 1827. each piece will be attached a long screw with a bur to screw each piece to the bell of the capital and abacus.

"I understand from your note that the model of the capital is to be the same as those inside of the Pantheon at Rome, and that the bell and the abacus are to be of marble, and that it is the ornaments only that I am to send a calculation of; that is, for the scrolls, leaves, and other ornaments adapted for a capital whose columns at the base are sixteen inches in diameter.

"I will undertake to make the one hundred capitals, with the exception of the marble bell and abacus, at eighteen guineas and a half each.

"If I am so fortunate as to obtain your order, you may depend on the strictest attention to the execution and quality.

"I am,

"Sir,

"Your very obedient servant,

"E. THOMASON.

"John Nash, Esq."

"6, Sackville Street, 25th May, 1827.

" My dear Sir,

"I hope very soon to see you on my way to Ireland, and shall be glad to witness an improvement in the great branch of our manufactures with which you are connected.

"My dear Sir,

"Yours, faithfully,

Bloomfild

"E. Thomason, Esq."

บ 2

1825 and 1826, travelled through the United States, and I understood he was present at the completion of the Grand Canal, uniting the Erie with the Atlantic. The American Government employed their best artist in medal engraving to engrave a pair of medal dies (of small size, about one inch and a quarter in diameter) to commemorate this important undertaking, which was accomplished towards the end of the year 1825.

The Duke, on his return, landed at Liverpool, and called upon me as he passed through Birmingham, and was so obliging as to present me with one of the American medals. His Royal Highness was well aware of the inferiority of the workmanship, both as to the execution of the dies and the making of the medal; but it was the best their artist could do. As so important an event was worth recording upon a medal, I had a pair of dies engraved, about four times the size, by one of my first artists, the allegory of the medal being exactly a facsimile of theirs. On the Obverse was a River God encouraging Neptune for a time, whilst he conducted him to the River Erie—the Legend, "Union of Erie with the Atlantic." On the Reverse was the Eagle standing upon, and in the attitude of protecting one-half A ship at a distance—an escutcheon of the Globe. with the sun rising out of the water, and in a garter the word Excelsion. The Legend—" Erie Canal, commenced 4th July, 1817, completed 26th October, 1825."

The Americans were delighted with this production, and seemed to acknowledge, without jealousy, the vast distinction between English and American artists.

As the Marquis Wellington married the widow of

Robert Patterson, Esq., I sent a present of one to her 1827. Excellency, hence the reply of Lieut.-Colonel Shawe.

I Lolouel Shame

is desired to acknowledge the receipt of Mr. Thomason's letter addressed to the Marchioness Wellesley, together with a beautiful medal, struck at his manufactory, in honour of the successful completion of the great work by which the navigation of Lake Erie is united with the Atlantic Ocean.

Her Excellency is extremely obliged to Mr. Thomason for his attention in sending her the medal destined to commemorate that interesting event.

Dublin Castle, 15th June, 1827.

"South Audley Street, July 5th, 1827.

"Dear Sir,

"I fear I shall have appeared very negligent in not having before written to you to acquaint you with my father's opinion respecting the copy you proposed to make of "the Waterloo Vase." I did not, however, forget my commission, but spoke to him of it soon after my return to town, and I am sorry to say that I am afraid it will not do just at present. My father, of course, cannot but feel complimented by having his works (and especially a work of such magnitude and importance as that under consideration) multiplied; but, independent of other circumstances, he feels that it would not be quite correct to permit any copy to be made of it until his Majesty's opinion should be taken, in case he should be indisposed to have repetitions of it sold. I do not, for my own part, see how any objection can be made

1827. in that quarter, especially when the copy would be made under the immediate superintendence of one so celebrated in such things as yourself, and to whom we already owe so much for so fine a copy of one of the finest vases in the world; but, before consulting his Majesty's wishes, it would certainly not be quite proper to commence such a work, and I therefore think the affair had better be deferred till you come to town, when we may hold a little consultation on it; I confess I am very anxious to see it done. We some time ago became acquainted with an Italian, who, in consequence of some troubles, was obliged to leave his country, and, though quite uneducated in the arts, has taken to modelling. His works are not copied from, nor his style founded on the antique, but his representations of common nature, particularly brigand scenes, in small groups and single figures, are so wonderfully finished, that they have surprised all who have seen them, and exhibit a power of working small things with a nicety that merits a better fate than he has at present—namely, selling them wherever he can find a chance purchaser. He was introduced to us by the Prince Cimetili, with a request that we would do all we could for him, and which we have endeavoured to do by recommending his figures Now he does not model in our way, nor to purchasers. do we require such a person, but it has struck me that he may answer your purpose, if you are in want of a neat modeller. I have not seen him lately, as I have been out of town, but I dare say I can easily find him if you think you will like to try him. I am sorry to say preparations are being made for the sale of Lord De Tabley's (I. J. Leicester) collection of pictures. The season is so far advanced, and so many people are already gone away, that it is feared the sale will not be as productive as

could be wished, either for the family or for the works 1827. to be sold; it will be hard to see some of the best works of the English school knocked down for a mere nothing, the consequence of choosing a bad and poor time of year for disposing of them. May I beg you to present my best compliments to Mrs. Thomason, and accept my thanks again for your attention to me during my short stay in Birmingham.

"I am, dear Sir,
"Yours faithfully,

firt Westmackful

"My father begs his compliments."

"Paris, English Embassy, 12th August, 1827. "Sir,

"Mons. Barruel, who was present at Birmingham when Dr. Hamel from Petersburgh showed you a specimen of a late French invention, called the Moirée Metallique, which has produced here very great effect, requests me to inform you that he has, after many experiments, succeeded in discovering the process by which those agreeable effects on metallic surfaces are produced, and has actually obtained better results. As you expressed a wish to become acquainted with the discovery to Mons. Barruel, for which you stated to him a disposition of giving a certain sum of money, he has directed me to say that specimens have been sent to my correspondent, M'Garden, of Oxford Street, operative chemist, late a partner with Accum, who will either show them to any person you might commission to examine them in London, or send you a couple of them.

1827. which, in the event of not pleasing you, or your not wishing to treat for the invention, I shall request you to return by the coach to the same M'Garden.

"Mons. Barruel, considering the expenses he has incurred in trying the various experiments for ascertaining the mode of producing and forming the moirée, and likewise the great advantage which is likely to derive to the person who may purchase the right of patent or the secret from him, proposes the sum of £600 for the communication of the secret, and he will, in the event of your agreeing to this, proceed to Dover as a rendezvous, whither you, or any person commissioned by you, might go; when Mons. Barruel will explain, demonstrate, and perform the necessary operations concerning the invention in question. M. Barruel's engagements preclude him from proposing a longer voyage.

"If I am to speak from personal knowledge, I shall say that, having assisted Mons. Barruel in all his experiments on this subject, I found he has simplified the process, and ameliorated the results greatly; and also that the application of this agreeable invention, particularly in a country where the assistance it would derive from good varnish would be so great, is likely to become of the greatest profit in England, as it has hitherto done in France, where a sheet of tin thus prepared and worked, covered with varnish, is sold for 18 francs.

"I shall request you to send as early an answer to the present as you can, there having been some proposals made which Mons. Barruel did not think proper to attend to until he should have heard from you, to whom he considers to have fairly promised a preference,



Manufactured at the Authors Establishment, for the most Noble

when at Birmingham last year, should he succeed, as he 1827. has done, in finding out the process.

"You will send your answer directed to me, English Embassy (Dr. Granville), Paris, put under cover to Wm. Hamilton, Esq., Under Secretary of State for Foreign Affairs, who will forward it to me.

"I am, Sir,

"Your obedient servant,

Myranila

"E. Thomason, Esq., Birmingham."

"London, Oct. 1st, 1827.

"Dear Sir,

"May I beg the favour of you to give the benefit of your notice to my eldest son, who, together with his tutor, a Mr. Guthrie, is the bearer of this letter, as to what is most worthy their attention during some hours they propose spending at Birmingham.

"I shall also be obliged to you to acquaint me if you happen to have manufactured, or are likely soon to manufacture, a piece of thin and embossed plate, of the same character, and nearly the same size and value, as one I purchased of you a few years ago. I should be glad to meet with something of the same sort.

"I remain,

"Dear Sir,

"Your faithful and humble servant,

Laus clorine

1828.

"Wadham College, Jan. 7th, 1828.

"Sir,

"I cannot permit a post to leave Oxford without making it the bearer of my very best thanks for your splendid and instructive present. The medals are indeed well worthy of the place they have obtained among the ornaments of Windsor Castle, and cannot but raise still higher the character of your manufactory, already celebrated as it is wherever the arts are valued and understood.

"Since I experienced your courtesy at Birmingham, I have often regretted, and almost complained, that neither you nor any part of your family have afforded me the opportunities I desired of becoming your host at Wadham. Considering that Oxford is in your direct road to London, I will not despair of being more fortunate hereafter. I have the same fault to find with our friend Mr. Richard Spooner, to whom, when you see him, I beg you will offer my compliments.

"I have the honour to be,

"Sir,

"Your most obliged and obedient servant,

W Tourney

"Edw. Thomason, Esq."

"Bushy, 10th Jan., 1828.

"Sir,

"I cannot allow a moment to pass without returning to you my best thanks for your very handsome present that reached me last night. The selection of the great results of this enlightened period are well judged, and, besides giving a succinct view of the development of natural philosophy and the progress of science, are an 1828. elegant ornament for a drawing room.

"They are trebly valuable from their series being the first medallic homage paid to the collective knowledge of the age. We are anxious to receive the drawing (improved) of the proposed medal for the Oriental Translation Committee, in order that a fac-simile of it should be engraved for our title page.

"I have the honour to be,

"Sir.

"Your obedient and obliged servant,

Whi Clavere

"Drayton Manor, May 5th, 1828.

"Dear Sir.

"I have this evening received the medal, and think you may proceed with it immediately. I shall be in London on Friday next, and shall rely upon your taking care that the parcel (containing the ten medals) will be delivered on Saturday morning; it must be directed to me at Mr. Dawson's, 16, Upper Grosvenor Street.

Robert Peel

"E. Thomason, Esq., Birmingham."

In April, Sir Robert Peel called upon me, and informed me that he was desirous of having a medal engraved of himself. The artist made a wax model of his bust, and my die engraver engraved the dies.

1828. The Obverse—a bust of Sir Robert. Legend—"Sir Robert Peel, Bart."

The Reverse—within a laurel was engraved—

"On the tenth of May, 1828, Sir Robert Peel met at the house of his son, the Right Honourable Robert Peel, in London, 50 of his children and grand children."

"Britannia Nail Works, Sept. 20th, 1828. "Dear Sir,

"On my return from London I learned that Mr. Spooner had declined showing the works, in consequence of my absence. The mistake was occasioned by my finding it necessary to have the young man who was left in charge of the manufactory sent on to join me in town, and I am very sorry it should have happened. Whether I chance to be in Birmingham or not, I have given directions to show you the little we have worth seeing at the Britannia whenever you will take the trouble of calling.

"A bookseller has sent me from town six copies of Mr. Buchanan's book on steam, which he has requested me to send, and noted in the enclosed.

"I am, with great respect, truly yours,

F. M. Somer

"Edward Thomason, Esq."

"Lodge, Eton College, Oct. 10th, 1828.

"I had the honour to receive, in due course from the date of your obliging letter, the very interesting

medal of which you furnished me with so very curious 1828. a history. Knowing that I should have the pleasure of seeing Col. Fitzclarence soon, I deferred my acknowledgment till we met. Yesterday he dined with me, when, upon my saying that your letter was most satisfactory in every particular, except that I did not learn from it the amount of my debt, he gave me to understand that he destined the medal as a present to my cabinet. Denon hinted at the prototype of this very curious instance of abortive vanity when I made his acquaintance at Paris, but from delicacy I did not pursue my inquiries. Your kindness has amply repaid me for the suppression of my curiosity.

"I shall hope in the spring to visit Birmingham, when I will avail myself of your permission to pay my respects to you.

"I have the honour to be, Sir,

"Your obliged and faithful servant,

"Ravenhead, 28th Oct., 1828.

Igoodall

"My dear Sir,

"Many, many thanks for your very kind assistance in the plan of a nice little laboratory furnace, with your accurate explanation, which I find on my return home, having been absent some time, which is the cause of my silence.

"Your obliging friend's experiments have, I apprehend, from the construction of the furnace, been made on flint glass, which, from its composition, you know will flux in close pots—that is, without the metal coming in contact with the fire, which no other glass will do;

1828. so that our plate glass would never flux without coming in contact with the flame and fire; but, I think by having the muffle open at both ends, and the fire passing through it, and coming in contact with the crucible, I should get the materials to flux. Would it be too great a favour to beg of your scientific friend to tell me what he esteems the best proportions of Stourbridge clay and potsherds (which you know is the burnt clay), for glasshouse pots, and through what sieve—that is, how many meshes in the inch in the sieve he sifts it? Our proportions are three of clay to one of potsherds, to make our open pots to contain 16 cwt. of materials—the clay sifted through a sieve of twelve meshes in the inch, and the potsherds through a sieve of fourteen meshes in the inch. Perhaps your friend may improve our proportions. I hope you will excuse the liberty I have taken in thus troubling you, but I wish for information. I will copy the plan, and return you the original by the first opportunity.

"Mrs. Sherbourne unites with me in best compliments to Mrs. Thomason and yourself, and hope you both continue well. Believe me,

"Dear Sir,

"Yours very sincerely,

"E. Thomason, Esq."

After shewing Prince Napoleon my manufactory, he wrote the following in the visitors' book:—

En voyant un aussi bel etablissment, on est d'autant 1828. plus convaincu que le merite est la vraie noblesse.

Le Prince Louis Napoléon Bonaparte

In December I finished a series of sixteen medals, of three inches in diameter, which had taken me two years to accomplish, and the public knew nothing of them until they were completed. I first laid them before my esteemed friend, our excellent magistrate, and celebrated antiquarian, Mr. Hamper. See his opinion in his letter.

> "Highgate, near Birmingham, Dec. 17th, 1828.

"My dear Sir,

"I must beg you to receive my best thanks for the favour which you conferred upon me this morning, in allowing me to examine the splendid series of medals intended as a present to his Majesty. They contain not merely a grammar, but a dictionary of the sciences; and I cannot help surmising that you must have applied to your mind (while condensing the valuable information on each subject into the narrowest possible compass) some operating power similar to that of Bramah's hydraulic press.

"I am confident, if you permit them to be made public, they will be deemed one of the most useful handmaids to science that can be found in this or any other country. Even the uninitiated may derive great entertainment and advantage from them. 1828. "The Iliad in a nutshell is no longer a problem!

"Repeating my thanks, I remain, my dear sir,
"Yours, very faithfully,

Arthamper.

Trevethic's High Pres-

sure

"Edward Thomason, Esq."

13. SteamEngines—Mar-

Capt. Savory

quis of Worcester &

I had already struck off and finished one series in gold plate, and, for the convenience of his Majesty to examine the whole without the inconvenience of turning them over, I had them struck on one side only, thereby making the whole thirty-two medals in number instead of sixteen; they were covered with glasses, and placed into a beautiful rich morocco case. The subjects of the medals constituted the following:—

medal	s constituted the following	:
	OBVERSE.	REVERSE.
No. 1.	Mechanics	Mechanics
2.	Optics	Optics
3.	Electricity	Galvanism
4.	Hydrostatics	Hydraulics & Pneumatics
5.	Metallurgy	Specific Gravities
6.	Chemistry	Chemistry
7.	Astronomy	Astronomy
8.	Mineralogy	Mineralogy
9.	Chrystallography	Crystallography
10.	Geology	Geology
11.	The Mountains	Classification of Minerals
12.	Phrenology	Phrenology

14. Newcomen & Boughton's

15. Watt's single, for raising water

Watt's double, for driving machinery

Perkins on the Steam 1828 Engine

Watt's single

Watt's double, with ever y improvement

I proceeded to Windsor, and I sent my servant with a letter to the Marquis Conyngham, informing him of the nature of my journey from Birmingham, when his Lordship returned me the following note:—

Hos bonyngham

requests that Mr. Thomason will call upon him here as soon as he receives this.

Windsor Castle, 29th December, 1828.

I proceeded immediately to the Castle, when Lord Conyngham informed me that his Majesty had been confined to his room for two days. I had a long conversation with him on the rise and progress of the series which I had brought with me, to pray that his Majesty would condescend to accept them, and I mentioned to him the opinion of Mr. Hamper, whom Lord Conyngham knew as a very talented magistrate. Lord Conyngham was struck with the novelty of them, and was pleased to say, "That, as they are your production, I will venture to carry the case into his Majesty's chamber." He

1828. informed me that his Majesty was much pleased with the work and that I should have his Majesty's opinion of them through his Minister.

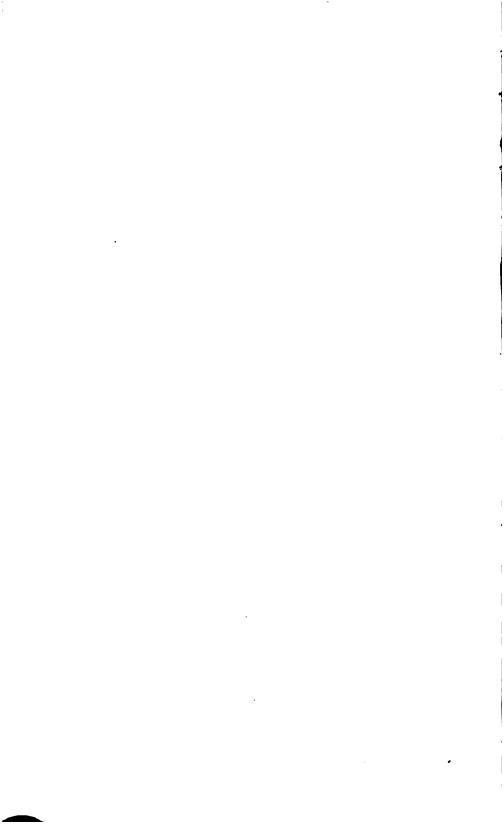
About this time I received a present from the Marquis Ginori, of Florence, a great lover of the arts, so much so, that the Marquis and the Grand Duke of Tuscany united in trying to establish a manufactory to perfect, in real biscuit burnt white porcelain, copies of the antique statues in Italy. This mode could only be effected by clever artists first modelling the figures in china clay, and, whilst in a soft state, to sculpture them. So far the thing was easily accomplished, but the last and great difficulty was the burning them without their warping. A variety of air furnaces and cones were tried to arrive at the wished for certainty, but it was one of those things which could not be made to answer, as only one, perhaps, out of five was perfect. The Marquis was mentioning these points to me, when on a visit to Birmingham; and, on his return to Florence, was so kind as to present me with seventeen pieces, or statues, about seven to ten inches in height, consisting of two of the Laocoon (lest one should break in transit), and one of each of the Apollo Belvideres, Cupid and Psyche, the Rape of the Sabines, &c.

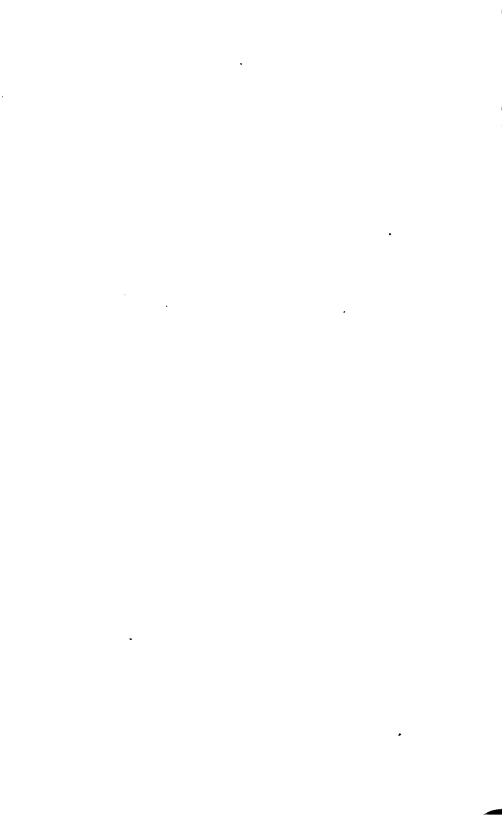
On the day which these arrived at my house, Sir Benjamin Bloomfield happened to honour me with his company at dinner. He much admired them, and there being a duplicate of the Laocoon, I begged permission to present it to Lady Bloomfield.

I had also the honour to receive a present from Sir Walter Scott, Bart., of eight volumes, constituting his poetical works. On the inner cover of the first volume was written, "Edward Thomason, Esquire, Birmingham, 1828. with the grateful respects of the author of these volumes.

Hallyful

"Abbotsford, 1828,"





### MECHANICS.

IF a body at rest be submitted to the action of two forces, one of two effects must ensue; the body must continue in a state of rest, or move: if at rest, the forces which act upon it are so related as to their intensities, that they neutralise each other.

This Science is divided into two parts—the *first* called *Statics*, or bodies at rest,—second *Dynamics*, or bodies in motion.

The velocities of bodies falling freely by their own weight are as the times of their falling from rest,—viz.

1					OF WINDMILL	&, DIVIDING T	er radius into 6 parts.
80	conde.	Velocity required.	Space fallen through in that time.	Space fallen through in the last second.	Radius.	Angle with the Axis.	Angle with the Plane of the motion.
	2	4	4	3	2	71°	19°
	3	6	9	5	3	<b>72°</b>	18°
	4	8	16	7	4	7 <b>4</b> °	16°
	5	10	25	9	5	77 <b>}</b> °	12 <b>¦°</b>
\					6	83°	7⁵

Every Machine must consist of some of the following 6 Mechanical Powers,—viz.

1st Lever, 1st kind, crow-bar, scissars, pincers, snuffers—2nd kind, a door, an oar, a rudder—3rd kind, spring tongs, spring shears.

2nd, Wheel & Axle.—The velocity of the power is to the velocity of the weight, as the circumference of the wheel is to the circumference of the axle.

3rd, Pulley.—To raise a great weight with a small power, as much velocity

is lost as the power gained.

4th, Inclined Plane.—If its length exceed 8 times its perpendicular height, a body is kept from rolling down upon it by a of its weight.

5th, Wedge.—All cutting instruments as swords, hatchets, chisels, planes.

6th Screw.—As much as the circumference of the circle described by the winch handle exceeds the distance between the spirals, so much is the force of the screw.

### MECHANICS.

Friction is always increased when surface of contact is increased.

In whatever proportion Pressure is increased, Friction is increased in the same proportion.

If Iron revolve in contact with Brass, the Friction is 1-7th of the Pressure.

If Wood revolve in contact with Wood, the Friction is 1-12th of the Pressure.

Priction of Oak against Oak is 0.43; Oak against Fir, 0.65; Elm against Elm,

Priction of Rollers of Lignum Vitæ of 6 inches in Diameter and of 2 inches in

Friction of Rollers of Lignum Vitæ of 6 inches in Diameter and of 2 inches in Diameter, Pressure=1.

The Roller charged with 100lbs. and 6 inches diameter, Friction 0.6—Ditto, 2 inches
Diameter, the Friction 1.6.
The Roller charged with 500lbs. and 6 inches Diameter, Friction 3.0—Ditto, 2 inches

Diameter, the Friction 9.4.

The degrees of speed of a Horse, the corresponding Load, and the useful Effect,—
Slower motions with heavy loads being the best.

Speed miles 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 1

Speed, miles 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Load 225 196 169 144 121 100 81 64 49 36 25 16 9 4 1 0

Usfi.efct. 0 196 348 432 484 500 486 448 392 324 250 176 108 52 14 0

The power of six Men equal to one Horse.

When the Velocities with which bodies are moved are the same, their forces are proportioned to their quantities of matter.

If B be a musket ball of 1lb. and C a cannon ball of 100lbs.

and both projected with the same force, C will strike the obstacle with 100 times the force as B would strike

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### **OPTICS.**

A Science which treats on Vision, nature of Light, and its general properties.

Light consists of separate parts, independent of each other.

Rays of light proceed in straight lines.

Light of the Planets travels at the rate of 195,000 miles in an hour.

Light travels from the Sun to the Earth in 7 minutes.

A Ray of Light in a slanting position is reflected in passing through Water, Alcohol, Oil, or Glass.

A Ray of Light falling perpendicularly undergoes no refraction.

The Angle which the Ray forms with the perpendicular is called the Angle of Inci-

The Angle which the Ray forms with the perpendicular is called the Angle of Incidence.

The Angle which the refracted Ray forms with the perpendicular is the Angle of Refraction.

In Water the line of the Angle of Incidence to the line of the Angle of Refraction

## is 1.396 to 1.

		REFRACT	IVE PO	WERS	<b>5.</b>	
Diamond Chromate of Lead Phosphorus Sulphur Glass	2.224 2.148	Sapphire Feldspar Calcareous	Spar	1.764 1.654	Topaz   Mother-of-pearl   Tortoiseshell   Amber   Plate Glass	1.640/ 1.658/ 1.591/ 1.547/ 1.514/
Quartz Castor Oil Nitric A		1.558 1.490 1.410	Alco Opal Ethe		1.44 1.44 1.358	372 0

Human Eye, Cryst. Lens 1.384 Ice 1.308

Sulphuric Acid 1.434

### **OPTICS.**

Lenses.—A Prism, a Plane Glass, a Spherical Lens, a double Convex, a Plane Convex, a double Concave, a Plane Concave, a Meniscus, a Concave Convex.

The following are the best proportions for Astronomical Telescopes.

perture Focus ditto. Eye (	
	lass. Power.
ICHES. INCI	ibs.
<b>2.43</b> 2.6	88 88
3.00 3.2	8 108
3.43 3.7	6 125
3.84 4.2	0 140
5.40 5.9	5 197
5.90 6.5	216
	2.43 2.6 3.00 3.2 3.43 3.7 3.84 4.2 5.40 5.9

The Angle of Refraction is equal to the Angle of Incidence. The Magnifying Power of Glass is 150, Sapphire 250, Diamond 400.

When the Rays of a Lens of 400 square inches are collected into 1 square inch, the burning power is 400.

The White Light from the Sun, or from any luminary body, is composed of colors, Violet, Indigo, Blue, Green, Yellow, Orange, Red.

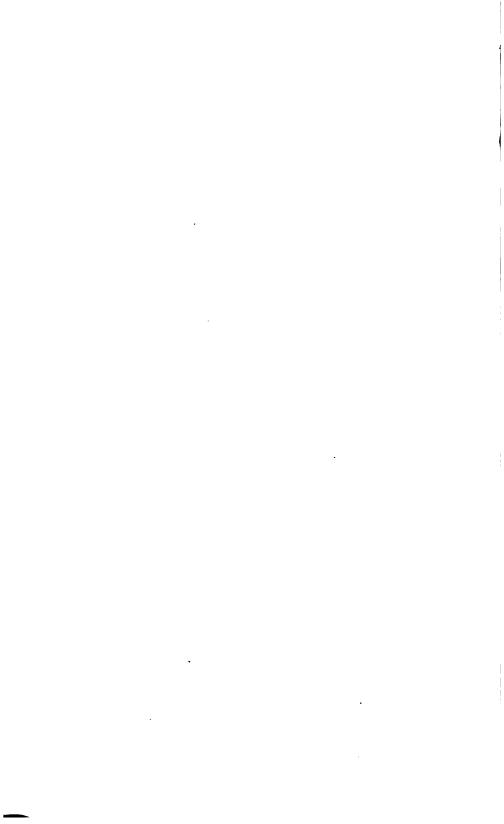
Refraction cannot be produced without producing color.

In Red Light the limit of microscopic Vision is the 19th million part of an English inch, and in the Violet the 8th million part.

The Speculum, by Ramage, at the Royal Observatory, is 15 inches, and focal distance 25 feet.

The Speculum, by Sir William Herschell, 48 inches; focal distance, 40 feet.

The Speculum, by Mr. J. Herschell, 18 inches, focal distance, 20 feet.



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### ELECTRICITY.

1st, Excitation—2nd, Attraction—3rd, Repulsion—4th, Distribution—5th, Induction—6th, Transference.

Non-conductors, or Electrics, are Amber, Glass, Wax, Silk, Gums, Gems.

Conductors, or Non-electrics, are Metals, Charcoal, Water.

The Metallic Conductor at the front of the Machine is the Positive,—the one which holds the rubber, Negative.

Positive Electricity is a redundance of the fluid, or plus.—Negative is a deficiency, or minus.

Saturating any body with the electric fluid produces no sensible change so long as the body is quiescent.

A ball which has received Vitreous Electricity from Glass, attracts that which has received Resinous Electricity from Sealing-wax.

Bodies charged with either species, repel bodies charged with the same species, but attract bodies charged with the other.

A very small shock passed through a plant destroys it.

For Conductors of Lightning, Copper is preferable to Iron.

The surface of the rubber should be coated with an amalgam of Tin,
Zinc, and Mercury, applied by means of Hog's Lard.

Electrophus, are Sulphur, Gum Lac, Sealing-wax, Pitch, and Resin.

### GALVANISM.

ANY two Metals produce the movements.

The nervous and muscular Organs, when Galvanized, are called the Animal Arc.

And that formed by the Galvanic Instrument the Excitatory Arc.

Galvanism is not attended with those appearances of attraction and repulsion which are held to be the tests of the present Electricity.

The two perfect Conductors are Zinc, with Silver or Copper.—The imperfect Conductors, Water, Saline or Acid Solution.

The Zinc is excited positively; the Silver or Copper negatively.—The Copper side communicates always with the ground.

If the Metals be arranged Silver, Copper, Iron, Tin, Lead, Zinc, each will become Vitreous by its contact with that which precedes it, and Resinous by that which follows it.

In decomposing the Soda and Potass, bubbles rise at the Vitreous Pole, whilst at the Resinous Pole metallic substances are formed, called Sodium and Potassium.—Spec. gra. Sodium, .972—Potassium, .965.

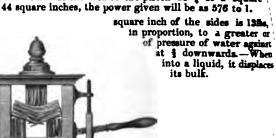
### HYDROSTATICS.

The Pressure of Liquid Fluids.

Ma. Perries says, water is compressible 1-27th part less than its bulk.

—The pressure of fluids is the same upwards, downwards, and in all directions.—The weight of water depends upon the height, without any reference to its width.—This power is applied to Mr. Bramah's Press; and the power of this machine is as the square of the area of the bottom of the cylinder is to that of the area of the forcing-pump piston-rod:—vis.—If the area of the piston be \(\frac{1}{4}\) of a square inch, and the cylinder 1 foot, or 144 square inches, the power given will be as 576 to 1.

The pressure of water on every at the depth of 30 feet, and so lesser depth. The centre a square upright is taken a solid body is plunged a quantity equal to



## HYDRAULICS,

Force and Power of Fluids in motion.

The weight or pressure of fluids is as their quantities or heights.

The perpendicular pressure increases in the ratio of the altitude of the column.

If water falls perpendicularly, its motion will be regulated by laws as apply to the falling of solid bodies.

Water flowing in a current, its motion is referable to that of solid bodies descending inclined planes.

In rivers, the velocity and quantity discharged, will be as the square root of the depths. The wine gallon contains 231 cubic inches; the imperial gallon, 277.

#### Contents of a Pipe, 1 inch in diameter:

Ft. high.	Cubic in. 9.42	Wt. Avoir. 5.46	Gal. wine. 0.0407	Ft. high.	Cubic in. 47.12	Wt. Avoir. 27.31	Gal. wine. .2040
2	18.85	10.92	.0816	10	94.25	54.62	.4080
3	28.27	16.38	.1224	20	188.49	109.24	1.2240
4	37.70	21.85	.1682	50	471.24	278.09	2.0400 /

There are three kinds of water wheels—undershot or tide wheels, breast, and overshot. The undershot works best when it moves 4-5ths the velocity of the stream.

The overshot wheel should move three feet in a second.

A cubical inch of water forms a cubical foot of steam, and occupies 1800 times the space of water.

#### PNEUMATICS-Pressure and Motion of the Air.

Fluids are divided into two,—elastic or compressible, as air and gassesnon-elastic, as water and fluids.—Air possesses inertia, as the wind:
weight 15lb. on the sq. inch. A cubic foot weighs 523grs., a
cubic foot of water, 1000os.—The Atmosphere sustains
a column of mercury of 29in., and of water
82ft. Sound travels 1142ft. per
second.



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### METALLURGY.

A cubic foot of Marble weighs 252lbs.—a cubic foot of Tin,
(the lightest of all metals) 516lbs.—and Gold, 1326lbs.

The great opacity of metals is in consequence of their density: hence their reflecting power.—Looking Glasses, merely by the metallic lustre of the silvering.

Perfect medals—Gold, silver, platina.—Imperfect medals—Copper, iron, tin, lead.—Semi-metals—Antimony, bismuth, zinc, nickle, cobalt, arsenic, manganese.—Ductility—Gold, silver, copper, iron, tin, lead.—Hardness—Iron, platina, copper, silver, gold, tin, lead.—Tenacity—Gold, iron, copper, silver, tin, lead.—Fusibility—Mercury, tin, lead, silver, gold, copper, iron, platina.

Wedg. Fak. 240° 82277° Wedg. Plateglass furnace 124° 17197° 6107 Extreme of Scale Delf-ware baked Air furnace 160 21877 Flintglass furnace 114 Derby China Vit. 112 15897 Fine Gold melts 5237 20577 15637 Cast-iron melted 150 Ditto Silver ditto 4717 Do. begins to fuse Stoneware baked 102 130 17977 14337 Sweed. copper, do. Common smith's \ 125 Welding heat iron 95 Flintglass fuse 70 18427 Brass 17827 10177 Flintglass fuse Enamel colors fuse forge

Iron red hot in day-light Ditto ditto in the dark Heat of a common fire Zine Quicksilver boils	700 660	Bismuth Tin Polished steel blue Ditto straw colour Melting mercury		•••	76° 476° 442 580 460 89
Lead melts	594	,	•••	•••	-

A compound of 3 parts tin, 5 of lead, and 8 of bismuth, melts below 210 Fahr.

An equal quantity of heat is set free from water when it assumes a solid form, and ice melts at 31°.

## SPECIFIC GRAVITIES.

The Specific Gravity of a body is determined by weighing it first in air, then in water; divide the total weight by the loss of the weight of water, and the quotient is the Specific Gravity.

#### Water at 1000 is taken for the unit for Solids and Liquids.

Antimony	6.702	Gold	1.925   M	Tercury	13.61	Sodium	0.972
Arsenic	5.763	Iradium		lickle	8.279	Steel, soft	7.833
Bismuth	9.880	Cast Iron	7.248 P	latina	21.47	Steel, soft Steel, hard	7.840 冒
Brass	8.000	Bar Iron	7.788 P	otassium	.865	Tin	7.291
Cobalt	8.600	Lead	11.35 R	hodium	1.065	Tungten	7.291 A
Copper	8.900	Manganese	8.000 S	ilver	10.47	Zinc	7.100 <sup>)</sup>
Acid.Ace	ic 1.0	062   Agate	2.500	Borax	1.71	4   Coal	1.300
- Fluo				Butter			2.857
- Mur		200 Alum	1.714	Campl	or .98	8 Corund	um 3.710
- Nitr	ic 1.2	271   Amb	er 1.100		houc .98	3 Diamor	nd 3.521
Sulp	huric 1.8	350 Blood	1.059	Chalk	2.65	7 Ether	866
· Fl	int 2.5	 82   Jet	. 1.300	Pitch	1.650	Peat8	00 /
` -		00 Ivory		Tallow		Quartz 3.0	/

Granite 2.750 | Limestone 2.500 | Naptha .750 Steam 1.452 | Magnesia 2.300 | Oil .940 Port.sto.2.496 Honey 1.450 Milk ... 1.032 Turpentine .870 S. watr. 1.028

Cork. 240, Fir. 550, Box. 912, Mahogany 1.063, Oak 1.170, Lignum Vitan 1.838, Port Wine. 997, Claret. 998, Atmos. air 1.000, Amo. gas. 590, Carb. acid gas. 1.527, Carbu. Hydro. 0.972, Chlo. 2.500, Hyd. gas 0.069, Mur. acid gas 1.284, Nit. gas 0.972, Nit. oxide 1.041, Oxygen 1.111, Sulph. Acid. 2.222.

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### CHEMISTRY.

Simple Analysis is to decompose and represent the elements of a body.

Compound Analysis is when the elements of a body form new compounds, and cannot re-produce a similar substance.

Synthesis is the re-uniting the component parts of any body to form similar substances.

Chemical decomposition is the act of dividing a body into its simple elements.

All natural bodies are either solid, liquid, or seriform.

A cubic foot of Atmospheric Air will hold in solution 11 grains of Water.

A cubic foot of Atmospheric Air weighs 1\frac{1}{4}oz. avoirdupois.—A cubic foot of Water, 1000 ounces.

The Properties of Atmospheric Air are fluidity, elasticity, expansibility, gravity.

Atmospheric Air composed of 21 Oxygen, 78 Nitrogen, about 1 per cent. of Aqueous

Vapour, including 1000th part of Carbonic Acid.—Water, 88 Oxygen, 11 Hydrogen.

Caloric present in all bodies: it must either be absorbed or reflected: its effects

Catoric present in all bodies: it must either be absorbed or reflected: its effective are expansion, liquefaction, vaporization, incandescence, and combustion.

Latent Heat of Caloric in Steam of 212° is 950° set free.

Gasses—Volatile liquids whose boiling point is lower than any natural temperature.—Common Fire & Candles instances of incandescence.

Phoenhousement Absorption of light The Glowway.

Phosphorescence—Absorption of light.—The Glow-worm and Fire-fly are naturally phosphorescent.

### CHEMISTRY.

Alkalies change the blue juices of vegetables green. There are three kinds—Potash, Soda, the other Volatile, or Ammonia.

Potash—The ashes of burnt vegetables, the base of which is Potassium.

Soda—The ashes of marine plants, the basis of which is also a Metal by voltaic decomposition, called Sodium.

For Percussion Locks—1 Sulphur, 3 Chlorate of Potash.

The instant that Ammoniacal Gas and Muriatic Gas are thrown together, a solid substance is formed, of little taste.

Acids are, liquid, as the acetic; solid, as the tartaric; gaseous, as the oxygen. They change blue vegetables to red.

Acids owe their oxygen to the acidifying principle, and combine with alkalies, earths, and metallic oxydes, to form compound salts.

Sulphuric Acid—8 parts Sulphur, 1 of Nitre, placed on a capsule of Water under a receiver; fire the mixture which unites with the oxygen of the atmosphere, is absorbed by the Water, forming Sulphuric Acid, the Oil of Vitriol of the Shops.

Nitric Acid—3 of Nitre, 2 of Sulphuric Acid, distilled and collected in a receiver.

If absorbed by Water it is the Aquafortis of the Shops.

Muriatic Acid—2 of Sea Salt, 1 of Sulphuric Acid collected in a receiver.

Condensed in Water, the Spirit of Salts of the Shops.

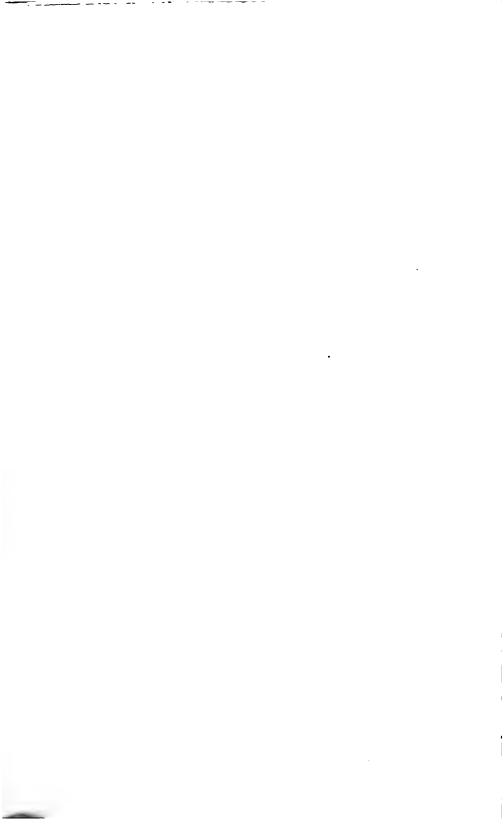
There are above 30 kinds of Acids; those ending in ic contain the most Oxygen, those ending with ous the lesser:—thus, Sulphate, a base with Sulphuric Acid—Sulphite with Sulphurous—Sulphur-

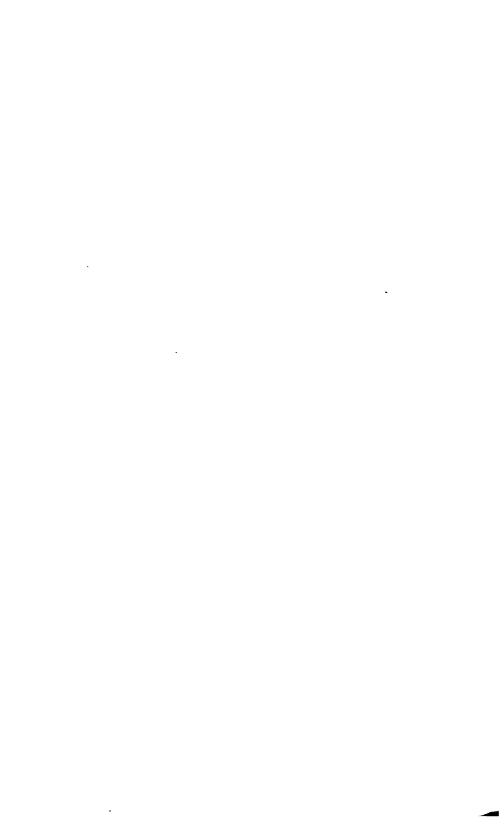
ates Metals or Alkalies with Sulphur.

Hydrates—Water solidified with a base, as slacked

Lime. Protoxide, 1st°, deuotoxide, 2nd.,

tritoxide, 3rd., per oxide, the
highest.





## ASTRONOMY.

Plane Astronomy determinates the magnitudes, orbits, and distances; *Physical* Astronomy the investigation of the causes of the motions. The axis of the earth is that diameter about which it performs its diurnal revolutions.

Diet from Moves in his |

/	Diam.Miles.	Sun,miles.	orbit per hour.	Planets.	Diam. Miles.	Sun, Miles.	orbit per hour.	\
/ Mercury	3000	37000000	95000	Mars	4189	14400000	00 53000	\
/ Venus	7900	69000000	75000	Jupiter	89170	49000000	00 25000	1
/ Earth	7470	95000000	68000	Saturn	80000	90000000	00 21000	- /
/ Moon	2180	94000000	2290	G. Sid	ıs <b>35865</b>	180000000	00 16000	1
18 Satellite Moon dista diameter, 8	nce from t	e; Earth, he earth 2	l; Jupiter 40000 mile	, 4; Sa s, diame	turn, 7 ; ter, 2180	Georgium ? ; Sun dista	Sidus, 6. ince 95 millio	DS,

### The Zodiacal Constellations and Sun's entrance, and the Signs. Ram 66 stars March 20 | - Libra

Balance

0	1 aurus	Duli	141	stars	Apri	20	Π	Scorpio	Scorpion	Oct. 23
п	Gemini	Twins	85	stars	May	21	1	Sagittarius	Archer	Nov. 22
23	Cancer	Crab	83	stars	June	21	13	Capricornus	Goat	Dec. 22
									Waterbearer	Jan. 20
败	Virgo	Virgin	110	stars	Aug.	23	×	Pisces	Fishes	Feb. 19
		-			_				t appeared 15	i31, the ,

2nd, 1607, and the 3rd, 1682. Herschell says, that seen in 1811 was 95 millions of miles from the sun, and 142 millions of miles from the earth. Between Mars and Jupiter there are four small planets—Vesta, Ceres, Pallas, and Juno.

## ASTRONOMY.

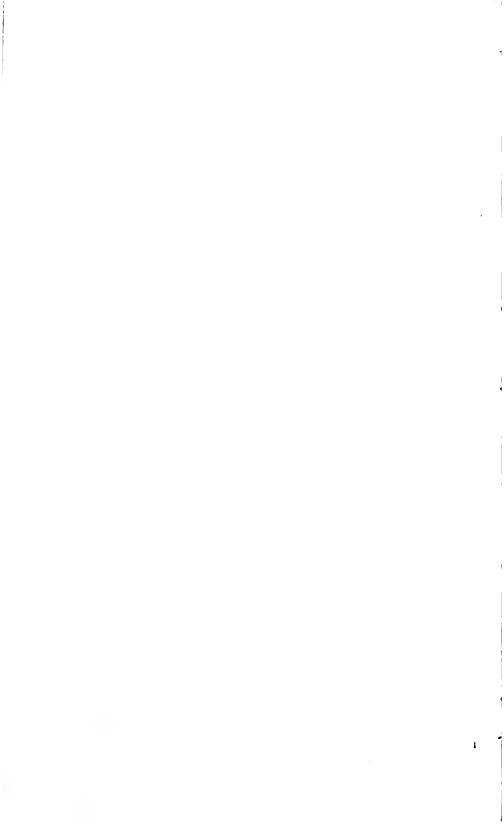
THE spots on the *Moon* always keep their places, never vanishing or going from one side to another, as those of the Sun do.

The Face of the *Moon in her mean libration*, drawn as she is seen through Telescopes magnifying between 200 to 300 times.

Eclipses of the Moon are caused upon it when the Earth's the Sun and the Moontions; one round its the other its annual its axis always in an angle of 29½°.

by the Earth's shadow falling body is interposed between

The Earth has two moown axis in 24 hours,
motion round the Sun,
clined to its path, in





### MINERALOGY.

Simple and pure Earths.—1st, silex; 2nd, alumine; 3rd, zircon; 4th, glucine; 5th, yttria; 6th, barytes; 7th, strontian; 8th, lime; 9th, magnesia.

Alkalies.—Soda, potash, ammonia, lithia.

Malleable Metals.—Platina, gold, silver, mercury, lead, copper, tin, iron, zinc, palladium, nickle, cadmium.

Brittle Metals.—Arsenic, antimony, bismuth, cobalt, manganese, tellurium, titanium, tantalium, molybdena, tungsten, chrome, osmium, iridium, rhodium, uranium, cerium.

Bases of Acids.—Fluorine, chlorine, nitrogen or azote, boron, sulphur, phosphorus, carbon.

Minerals are divided into genera, containing one or more Families.—We have in the EARTHY MINERALS.

1st genus, silicious.—Families—ffint, garnet, idocrase, shorl, epidote, pitchstone zeolite, lazulite, felspar, mica, slate, clay, lithomarge, hornblend, augite.

2nd genus, magnesian.—Families—magnesite, talc, chrysolite.

3rd genus, aluminous.—Families—ruby, nepheline, topaz, cyanite.

4th genus, zircon.—Family—zircon.

5th genus, glucine.—Family—emerald.

# ACIDIFEROUS EARTHY MINERALS.

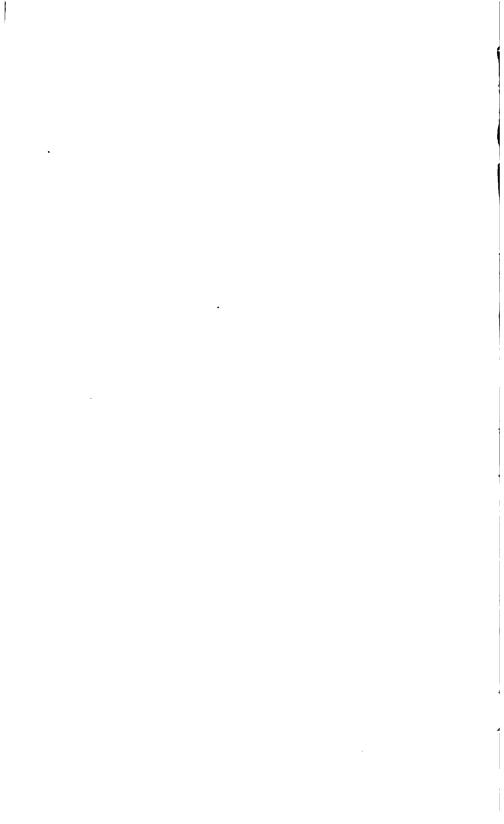
lst genus, Calcareous.—Families—carbonates, phospates, fluates, sulphates, silicates, borosilicates, arseniates, tungstates.—2nd genus, Aluminous.—Families—sulphates, phosphates, fluates, mellates.—3rd genus, Magnesian.—Families—carbonates, sulphates, borates.—4th genus, Barytic.—Families—carbonates, sulphates.—5th genus, Strontian.—Families—carbonates, sulphates.

#### ALKALINE CLASS.

1st genus, Salts of Potash.—Family—nitrates.—2nd genus, Salts of Soda.—Families—carbonates, sulphates, muriates, borates.

#### METALLIC CLASS.

1st genus, Gold.—Families—alloys.—2d genus, Platinum.—Families—alloys.—3d genus, Palladium.—Families—alloys.—4th genus, Iridium.—Families—alloys.—5th genus, Tellurium.—Families—alloys.—6th genus, Mercury.—Families—alloys, sulphurets, oxydes, chlorides, salts.—8th genus, Copper.—Families—alloys, sulphurets, oxydes, salts.—9th genus, Iron.—Families—alloys, sulphurets, oxydes, salts.—10th genus, Manganese.—Families—oxydes, salts.—11th genus, Uranium.—Families—oxydes.—12th genus, Cerium.—Families—oxydes, salts.—13th genus, Tantalum.—Families—oxydes.—14th genus, Cobalt.—Families—alloys, sulphurets, oxydes, salts.—15th genus, Nickle.—Families—alloys, oxydes, salts.—16th genus, Salts.—16th genus, Tin.—Families, —sulphurets, oxydes.—18th genus, Titanium.—Families—oxydes, salts.—19th genus, Zino.—Families—sulphurets, oxydes, salts.—20th genus, Bismuth.—Families—alloys, sulphurets, oxydes, salts.—21st, Lead—Alloys, sulphurets, oxydes, salts.—23rd, Antimony.—Alloys, sulphurets, oxydes.—23rd, Arsenio.—Alloys, sulphurets, oxydes.



### GEOLOGY.

The Globe 8000 miles diameter, 25000 circumference.

/			<b></b> .			
/ Primitive Rock	t.	Composed of.	Structure.	Contents.		
Granite	•••	Felspar, quarts, mica	Granular	Shorl, copper, tin		
Gneiss	•••	Mica, felspar, quarts	Slaty	{ Garnet, lead, iron, } pyrites		
Mica Slate		Mica, quarts	•	Gold, copper, pyrites, cobalt		
Clay Slate	•••	{ Quartz, felspar, schorl, } garnet, hornblend }	Roofing slate	Tin, lead, cobalt, silver		
Primitive Limestone		Lime 57, carbonic acid 48	Granular	Lead, zinc, iron, gold		
Primitive Trapp		Hornblend	Massive	Silver, cobalt		
Serpentine		Silex, magnesia, alumine	Massive	Native copper, scap-stone, asbestos		
Porphyry	•••	{ Quartz, felspar, horn-} stone, clay }	Massive	Gold, silver, lead, tin, irea,		
Sienite		Felspar, hornblend	Massive	Abounds in iron		
Topaz Rock	•••	Quartz, topaz, schorl, clay	Massive	No metallic ores		

Veins & beds

Granular

Slaty

No metallic ores

No metallic ores.

... No metallic ores

Veins & beds No metallic ores

Mica and felspar The above never contain animal or organic remains of plants or animals.

Milk-white quartz ...

Milk-white quartz ... ... Hornblend and clay-slate ...

Slaty structure, mixed with mica ...

Quartz Rock

Primitive Flinty Slate

Primitive Gypsum

White Stone

Transition, or Oldest Secondary Rocks are Four in number,—viz. Transition Limestone, is massive, of lime and clay, and contains zoophites and shells, and seldom metaliferous.—Transition Trapp, is massive, of basalt, and contains the amygdaloid.—Grewacke, is in beds and veins, and sand and clay slate is widely distributed, and contains silver, copper, zinc, and lead.—Transition Flinty Slate, is slaty, of silica and clay, of small importance.

# SECONDARY ROCKS,

In which are abundance of the remains of plants and animals.

Old red Sandstone Strata 3rd Sandstone 1st Floetz Limestone Veins Rock Salt Formation 1st Floetz Gypsum Granular Chalk Formation Granular | Floetz Trap Formation Variegated Sandstone ... Granular Independent Coal Formation 2nd Floetz Gypsum Granular | Newest Floetz Trap Volcanic Shell Limestone

#### Tertiary or Alluvial Deposits.

Sand, loam, clay, sulphur, bog iron ore, bituminous wood, gravel.—In which is found shells of oysters, muscles, and a few organic remains of land animals.

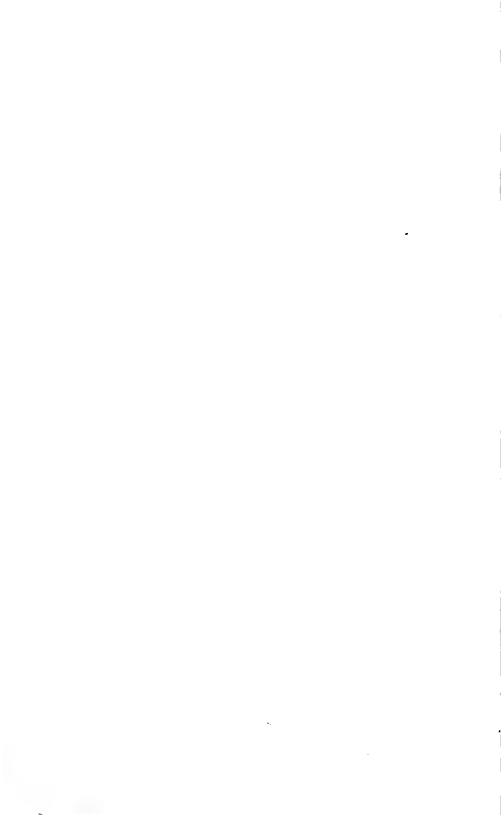
Chalk London Basin—North, Flamboroughhead, Yorkshire, to Hungerford, Wiltshire.—South, to the North of the Thames.—North, West angle to the Isle of Thanet.—East, bounded by the German Ocean.

Isle of Wight—On the North, below Winchester.—South, Carisbrook, Isle of Wight.—East, Brighton.—West, Dorchester.

Granite.—Scotland, Bascahwaite, Cumberland, Isle of Man, Isle of Anglesea,
Tavistock, Bodmin, St. Agnes, and Land's End, Cornwall.

Coal.—Northumberland, Durham, Whitehaven, Lancaster, Sheffield, Wigan, Flintshire, Denbighshire, Shropshire, Staffordshire, Warwickshire, Leicestershire, Derbyshire, Gloucestershire, Monmouthshire, Glamorganshire, Somersetshire.

Strata above the London Chalk—1st, Whitesand; 2nd, Pipeclay, Wood-coal, Sand, Pebbles, Shells; 3rd, London Clay; 4th, Gravel, Sand, Shells, Brickearth; 5th, Vegetable Mould.





#### CHRYSTALLOGRAPHY.

A name given to polyhedral bodies produced by nature and the operations of chemistry.

All Crystals, with regard to shape, may be considered as rectilineal solids, composed of planes, edges, and solid angles.

The carbonate of lime is found in 300 forms, & the oxyde of tin in 180 varieties.

These complicated forms may be traced into one simple form, termed the primitive Crystal of that substance.—The primitive forms may be said to be comprehended in the five following solids,—viz. 1st, the cube or rhomboid of 6 planes—2nd, the octobedron of 8 planes—3rd, the tetrahedron of 4 planes—4th, the hexahedral prism of 8 planes—5th, the rhomboidal dodecahedron of 12 planes.

If the mechanical anatomy is carried further, the ultimate result is a solid called the integrant molecule.

The integrant particles of Crystals are the tetrahedron, the triangular prism,
the cube.

If the cleavage is pursued on a cube of common salt, the primitive form is the cube.

If the cleavage is pursued on a cube of fluate of lime, the primitive form is the octohedron.

Carbonate of lime is always broken into rhomboids, and no other form.

In the Iceland rhomboid carbonate of lime there is a double refraction; one ray of light passes perpendicularly, whilst another ray is refracted in a plane parallel to the diagonal.

Angles are divided into right, plane, solid, oblique, acute, and obtuse.

Triangles into equilateral, scalene, isocecles, rectangular. The side opposite to the right angle is called the hypothenuse, the other the legs.

Quadrangles into parallelogram, square, rectangle, rhombus, rhomboid, trapezium, trapezoid.

Polygons into pentagon, five sides; hexagon, six; heptagon, seven; octagon, eight; nonagon, nine; decagon, ten; duodecacon, twelve; quindecacon, fifteen sides.

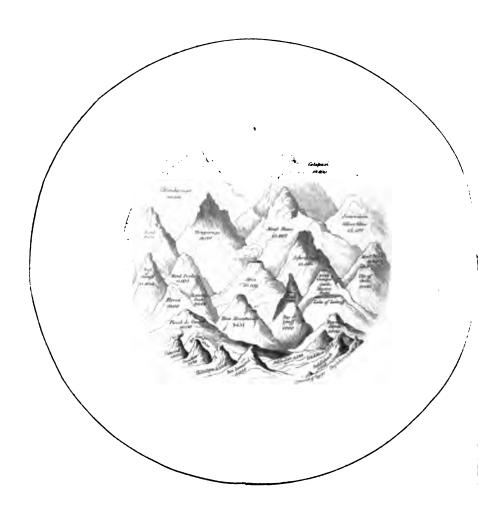
Pyramid, whose bases are any polygon, and whose faces are pointed triangles.

Icosahedron, a regular solid made up of twenty pyramids, whose summits meet in a point, at the centre of the body.

Prism, a solid figure of more than 4 planes, the 2 opposite ends being equal and parallel to one another.

Parallelopiped, a prism, contained under 6 quadrilateral figures, every opposite two being equal and parallel to one another.





#### CLASSIFICATION.

-Native and carbonate Limetones—Chalk, Bath-stone, Portland, magnesian, septarium, marls.

Marble Limestone—Parian, Carrara, white granular, black, vert antique, rouge antique, serpentine, shell, brecciated, lumachella.

Stalactitic Carbonate of Lime—Agaric, stalactitic, osteocolla, flosferri, stalagmite,

satin spar.

Crystallized Carbonate of Lime-Primitive calcareous spar, Iceland, dogtooth, primitive pearl spar.

Sulphate of Lime—Gypsum, granular gypsum, compact fibrous, selenite, anhydrous. Fluate of Lime—Compact, earthy, fibrous, foliated.

Phosphate of Lime-Compact, crystallized or apatite, phosphorite.

Barytes—Witherite or carbonate of barytes, heavy spar, sulphate of barytes.

Magnesia—Serpentine, steatite, asbestos, talk, jade, chlorite, actinolite, boracite, chrysolite, olivine. Zircon—Hyacinth, eudyalite.
Glucine—Beryll, emerald, euclase.

Alumino Sapphire, ruby, amethyst, chrysolite, topas, garnet, corundum, emery, felspar, adularia, kaolin of china, clay, loam, fuller's earth, ochres, mica, cyanite, slate, shale, or secondary schistus, black crayon.

-Quartz, prase, jasper, bloodstone, flint, chert, chalcædony, onyx, sardonyx, agate, mocoa, cornelian, opal, cat's-eye, tourmaline, rubellite, hornblende, lapis lazuli, seolite.

#### SALINE.

Alkaline Salts—Potash, soda, ammonis.

Earthy Salts—Sulphate of alumine.

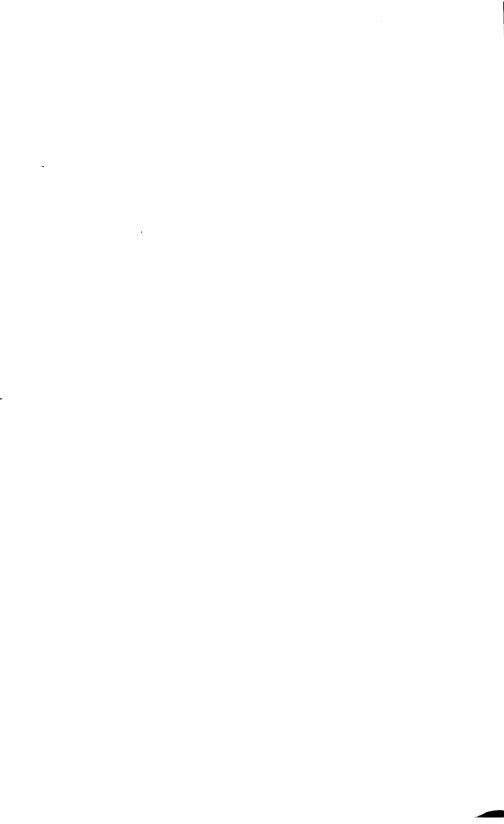
Metallic Salts—Sulphate of iron, sulphate of copper, sulphate of zinc.

INFLAMMABLE SUBSTANCES—Sulphur, diamond, amber, carbon, turf, peat, bovey-coal, jet-coal, plumbago, bitumen, naptha, petroleum, asphaltum.

METALLIC—Platina, gold, silver, quicksilver, copper, lead, tin, iron, zinc, antimony, arsenic, cobalt, bismuth, nickle, manganese, molybdena, chrome, tellurium, uranium, titanium, tungstein, wolfram.

OCKS—Granite, gneiss, micaceous, schistus, porphyry, basalt, ferrilite, trapp, clinkstone, amagdaloid, sienite, grunstein, pebblestone, sand-stones, siliceous pebbles, tripoli, lava, puzzolana, trass, pumice, obsidian.





# PHRENOLOGY.

1 Amativeness

2 Philoprogenitiveness

- 3 Inhabitiveness
- 4 Adhesiveness
- 5 Combativeness
- 6 Destructiveness
- 7 Suretiveness
  - 8 Acquisitiveness
    - 9 Constructiveness

10 Self-esteem

11 Love of approbation

- 12 Cautiousness
  - 13 Benevolence
    - 14 Veneration
    - 15 Firmness
    - 16 Conscientious

ness

17 Hope

18 Marvellousness

# PHRENOLOGY.

/19 Ideality

20 Gaiety

21 Imitation

22 Individuality

23 Configuration

24 Size

25 Resistance

26 Colouring

27 Locality

28 Calculation

29 Order

30 Eventuality

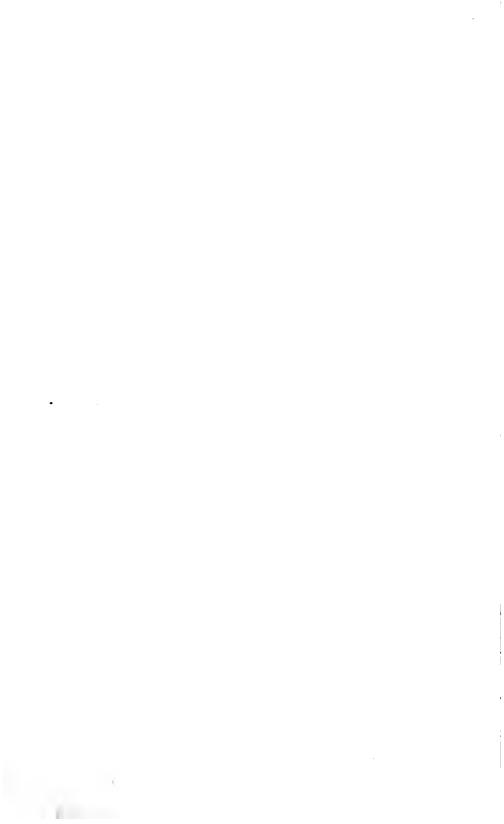
31 Time

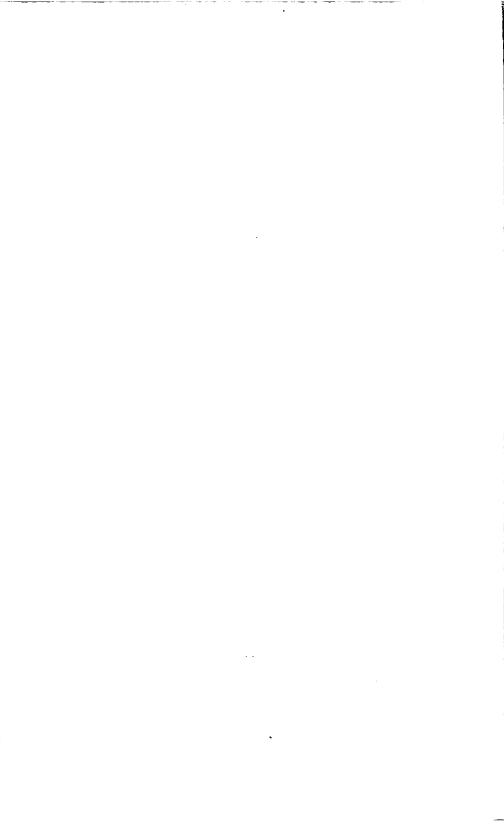
32 Melody

33 Language

34 Comparison

35 Causality





### SAVERY'S STEAM ENGINE.

Marquis of Worcester in 1663, and published in 1683. Captain Savery constructed, and obtained Patent for the first Steam Engine in 1698. Savery perceived that instead of exhausting the barrel of a common hand pump by the laborious method of a piston and a sucker, if it was first filled with steam, and the steam then condensed, the atmospheric pressure would force the water in the well up into the pump barrel, and into any vessel connected with it whose height did not exceed 34 feet above the level of the water in the well.

D. E. are the boilers, T. T. the vessels, B. B. and A. A. the lator worked by hand, C. the condensing pipe, moved alvessel, S. the suction-pipe the water which is to be

To ascertain the

To ascertain the gine,—find the area of the piston, and minute, multiplied elasticity of the number of foot in a micommunication pipes, V. V. the steam valves, R. the sliding valve or regucistern of cold water, G. the ternately over each steam descending into the well of raised.

power of the steam enof the cylinder, length number of strokes per by the power of the steam, produces the pounds through a nute.

#### HIGH PRESSURE ENGINE.

In this engine, no vacuum is produced, and the only part of the steam pressure which is available, is that part which exceeds the atmospheric pressure. The cold-water cistern, condenser, air pump, and cold-water pump are dispensed with, and nothing retained except the boiler, cylinder, piston, and valves, and four-way cock.—

The valve is frequently loaded with from 60 to 80lbs. upon the square inch. The precaution used against the danger of bursting is by placing a tin plug in the boiler, which plug fuses and drops out when the elasticity of the steam is too great. Also the mercury in the steam gauge is blown out, and the steam permitted to escape through it when the pressure is too high.

In 1802, Trevethick and Vivian constructed one of these engines, and in 1804
Trevethick made a locomotive one upon the same principle, and worked it upon
the railway at Merthyr Tydvil; it there drew carriages, loaded with ten tons
of iron, nine miles, at the rate of five miles per hour.

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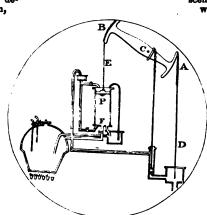
# NEWCOMEN'S STEAM ENGINE,

#### CALLED THE ATMOSPHERIC ENGINE.

HE was a native of Dartmouth, and obtained a Patent in 1705 for connecting the end of the pump rod by a chain with the arch-head of a working beam playing on an axis, and the other arch-head of this beam was connected by a chain attached to the end of a solid piston, which moved air-tight in a cylinder. A vacuum being created beneath the piston, the atmospheric air pressed it down with a force of 15lbs. upon every square inch.

In this engine, a man was employed to open and shut the cocks; but a boy, named Humphrey
Potter, contrived to make the engine work its own valves or cocks, by attaching strings to their
levers, and carrying the strings to the working beam. In 1717, Mr. Beighton, an engineer, availed himself of and improved Humphrey
In 1717, Mr. Beighton, an engineer, availed Potter's idea, by attaching to the werkplug frame, which struck the valve levers as it ascended and descended.

A. B. is the working beam, on the axis C. The archchain with the piston rod, in the cylinder, F. A vaunder the piston, P., the forces [down | the 'pising heavier than the the friction and eleagain.



with two arch-heads moving head, B., is connected by a E., which moves air-tight cuum being produced atmospheric pressure ton,—the rod, D., berod, E., overcome: vates the piston

### PERKINS'S STEAM ENGINE.

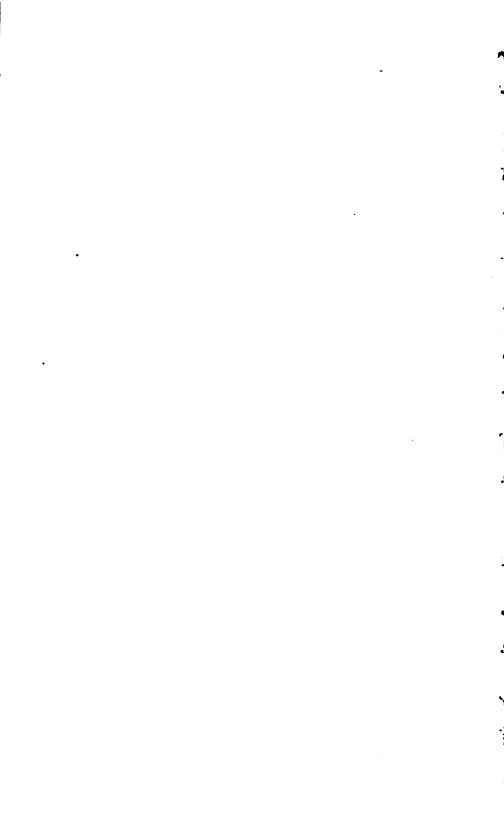
The vaporization of liquids is resisted by mechanical pressure. Mr. Perkins availed himself of these facts, and constructed a cylindrical vessel of copper, three inches thick, containing eight gallons, capable of bearing an internal pressure of 4000lbs. on the square inch; the safety valve was loaded with 37 times the atmospheric pressure; the temperature of the water in the generator not being permitted to expand into vapour, was about 500 degrees of the common thermometer; a small quantity of water was now forced into the generator, which displaced an equal quantity of the high-heated water, and which instantly flashed into steam of enormous pressure, working a double-acting engine upon Mr. Watt's principle.

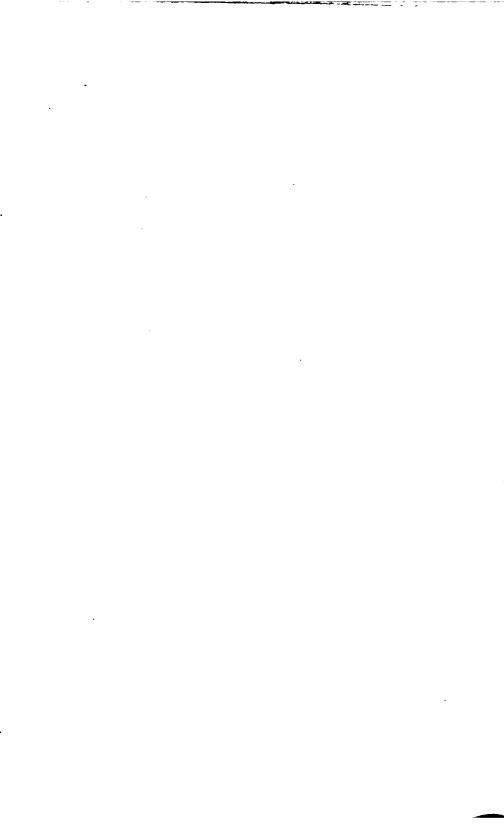
An engine of 10-horse power has a cylinder only 2 inches in diameter and 18 inches in length. In 1823, he applied this power as a substitute for gunpowder, and projected from a gun-barrel above 100 balls per minute.

Smeaton says, a man will raise six cubic feet of water, ten feet high, in a minute; and rates a horse at six times the power of a man. A cubic foot of water weighs  $62\frac{1}{2}$  lbs., or 1000oz.

To compute the number of square inches in a cylinder whose diameter is twelve:—

12+12=144 + 14=10 3-7 +11=115 sq.





# MR. WATT'S SINGLE ACTING STEAM ENGI

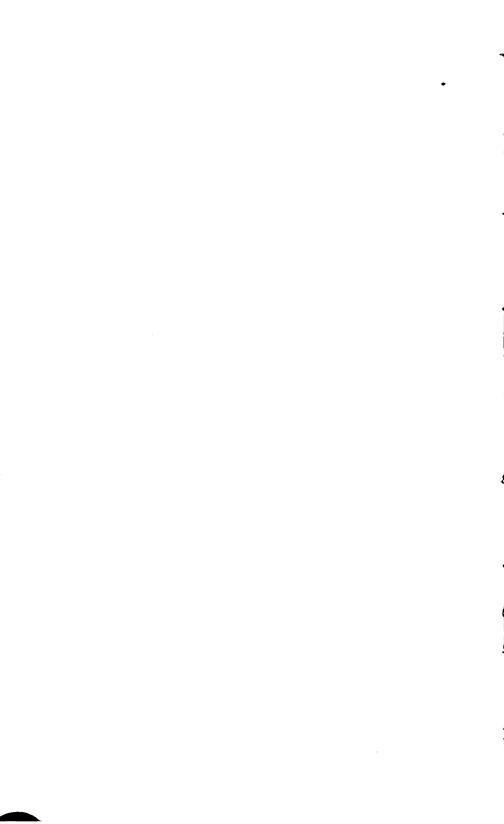
SINGLE-ACTING STEAM ENGINE. FROM 1717 to 1763 no important improvement was made, when Mr. James Watt, a native of Greenock, and a mathematical-instrument maker at Glasgow, turned his attention to the subject of the Steam Engine, and gave his whole mind to the consideration of a method of condensing the steam without cooling the cylinder; for he perceived that if much condensing water was used, it cooled the cylinder, and if but little, a vapour remained that resisted the descent of the piston. He attached a separate vessel from the cylinder, and which vessel being kept immersed in cold water the expansive property of the steam made it rush from the cylinder to this vessel; and at the bottom of this separate condenser he made a communication with a pump, called the Air Pump; so that the water, air, and other fluids were completely drawn off, and the machine itself worked these improvements. -This happy conception immortalized the name of Watt.

S. the tube which conducts the steam from the boiler.

—G. the upper steam valve.—I. the exhausting valve.—E. the condensing valve.—H. the lower steam valve.—P. the piston rod of the great steam cylinder, C.—Q. the rod of the air pump, N.—O. the rod of the hot-water pump, which enters the hot well, B., and feeds the boiler beyond S.—L. the rod of the cold-water pump, Z., which sends the cold water in a constant stream into the cold cistern—and R. the rod of the pit pump. The three valves, G. I. E., simultaneously open by the striking of a pin on the rod of the air pump, whilst the 4th valve, H., is closed; and vice versa.—The four pistons, Q. O. L. R., are attached to the great beam, and worked by the piston of the steam cylinder.

Mr. Watt obtained his Patent in 1769, six years after he constructed the model, when he entered into partnership with Dr. Roebuck. Mr. Boulton purchased Dr. Roebuck's share of the Patent in 1773, and became the partner of Mr. Watt. By the advice of Mr. Boulton, in 1775, Mr. Watt applied to Parliament for the extension of his Patent, which was granted for twenty-five years, to expire in 1800. Messrs. Boulton and Watt accepted of one-third of the savings of coal for their profit, and two-thirds they gave to the public.

Mr. Watt's fame was now spread to the very skirts of -civilization.

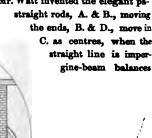




#### MR. WATT'S DOUBLE-ACTING STEAM ENGINE.

In the Atmospheric Engine of Savery, and the improved Steam Engine of Mr. Watt, the power was of an intermitting kind, as it acted only during the descent of the piston. So long as the engine was applied only to pumping, this was no defect; but to drive machinery, a constant and uniform action is required. Mr. Watt accomplished this by adopting a method that the steam should press the piston upwards as well as downwards. By this plan, the beam no longer pulls up the piston rod, but is pushed up by it. This was effected by opening alternate communications by valves between each end of the cylinder, the boiler, and the condenser. Now the flexible chain on the arch-head was incapable of a push or a thrust; and Mr. Watt invented the elegant parallel motion combined of 2 straight rods, A. & B., moving the ends, B. & D., move in C. as centres, when the from straight line is imper-

on pivots, A.& C., so that arcs of circles with A. & deviation ceptible, and the enitself.



Mr. WATT perceived that a continued rotatory motion was now required to turn machinery. To accomplish this, Mr. Watt first used two wheels, called the sun and the planet; when two revolutions of the sun wheel was produced by one of the planet: but he finally adopted the crank, viz.—K. is the axis of the wheel which conducts the machinery, to which rotation is imparted by the beam, C. H. On the axle, K., suppose a lever, K. I., is fixed, so that when K. I. is turned round the centre, K., it is evident the wheel must be turned with it. However, there were two positions in which the engine could have no effect in turning the crank; but the machine was extricated by the tendency bodies have to continue in motion. theless, Mr. Watt remarked when the engine lost its power over the crank the motion became slow and irregular, and he placed a fly-wheel on the axis of the crank, which equalized the motion. He saw, however, that if the resistance or load of work upon the engine be diminished, the velocity was increased. This defect led his genius to contrive the beautiful apparatus, called the Governor, viz.—When the speed of the fly-wheel is increased, the spindle, L., is rapidly whirled round, the balls, N. N., fly from their centre, the levers on the axis, O., depress the joints, Q. Q., draw down the joints, R., which partially closes the throttle valve, T., and adapts the power to the work required.

Jan. 3. On my return home, I sent Lord Conyng- 1829, ham a present of a series in white, in a case; and I also enclosed him Mr. Hamper's letter, which I had promised him. See his replies:—

"Windsor Castle, Jan. 6, 1829.

"My dear Sir,

"I cannot refrain an instant returning to you my sincere thanks for your most beautiful specimen of medals. I can assure you, my dear Sir, your present is appreciated by me in the fullest sense of the word.

"I am, my dear Sir,

"Very truly yours,



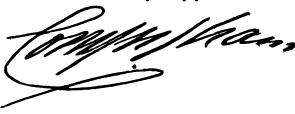
"E. Thomason, Esq., Birmingham,"

## " Dear Sir,

"I return you, with many thanks, Mr. Hamper's letter. The contents perfectly coincide with my sentiments concerning the medals, which I endeavoured to express in the letter I troubled you with yesterday.

"I am, dear Sir,

"Very truly yours,



"Jan. 7th, 1829."

1829. His Majesty George IV. was pleased to condescend to accept the series, and I received the following letter from Mr. S. M. Phillipps, Secretary to Mr. Peel, expressing his Majesty's opinion of them.

"Whitehall, Jan. 10th, 1829.

"Sir,

"I am directed by Mr. Secretary Peel to inform you, that your petition, praying his Majesty's acceptance of the first series of your philosophical and scientific medals, has been laid before the King, and that his Majesty has been graciously pleased to accept the medals, and to express his admiration of them as fine specimens of the perfection to which the art has been brought.

"I am, Sir,
"Your most obedient humble servant,

IM Shillipp,

"Edward Thomason, Esq., Birmingham."

I presented a series of my scientific medals to many of the professors of science in Great Britain and Ireland, and to nobles and others in this country who encouraged scientific novelty, and I was highly and gratefully recompensed by the most flattering remarks of their approbation.

As it is a custom when a present is offered to a potentate, that it must invariably be done by petition, I sent a petition to his Most Christian Majesty, Charles X., of France, stating the nature of my achievements,

and soliciting that his Most Christian Majesty would 1829. be pleased to condescend to accept the series. King expressed his approval of the novelty of the work, and, probably, as I had the honour of being known to him, his Majesty laid it before the Institute; and having received a favourable mention of the novelty of it, his Majesty issued his royal commands that a series, containing every medal of the French empire, in the finest bronze, should be presented to me in return. This magnificent present consisted of 1,037 in number, all in the finest order. M. de Collet, the Secretary of the Parisian Mint, wrote to me to the effect, congratulating me on some early day being in possession of so valuable and unique a series, and observed that it would take some time in collecting them, as some of the ancient dies might be mislaid; and in that case, to comply with the King's command, they should be obliged to purchase such from private collections.

His Majesty the King of Prussia presented me with the gold medal of Merit; and his Majesty the King of Naples honoured me with the cross and decoration of the Order of Francis I. of Merit.

I will notice some of the flattering and complimentary letters which I received.

"Harborne, Jan. 7th, 1829.

"My dear Sir,

"Let me thank you, which I do most unfeignedly, for the beautiful present I yesterday received from you. Your series of scientific and philosophical medals will go down to my family as a lasting proof of your esteem and regard. They do great credit to your taste, as well as prove your attachment to the arts and

1829. sciences, of which you have been very long an illustrious patron. Believe me to remain,

"My dear Sir,

"Your very faithful and obliged friend and servant,

Holines

"Edward Thomason, Esq."

Mrsvnykann presents his

compliments to Mr. Thomason, and begs him to accept his best thanks for the valuable series of scientific medals which he has been so kind as to send him. Mr. B. trusts that so useful a work will receive the encouragement which it merits.

Hill Street, Jan. 8, 1829.

"Oxford, Jan. 9, 1829.

"My dear Sir,

"I am highly gratified by your kind attention in thinking me worthy of the distinction you have conferred on me, by presenting me with a series of your very interesting scientific medals, which I have this day had the honour to receive, and which I assure you I shall always most highly value. They will form an instructive document to posterity of the progress of the arts and sciences in our day, and will transmit your name to future time associated with both. His Majesty, I have no doubt, will have been much pleased with your attention in sending him the series mentioned in your letter. I shall make a point to show them at my lectures,

which will now shortly recommence. Allow me to repeat the assurance I have before given you, that it would afford me great pleasure to show you our Museum in Oxford, which contains much that would interest you. There is a young man, named George Barnard, a relative of my wife, who is just come to Birmingham as a clerk in the Bank of England establishment there. As he is quite a stranger in your town, and is a most deserving and excellent young man, you will much oblige me if you will have the kindness in any way to notice him, as I am well assured that the fact of being known to be acquainted with you must be a great advantage to any young stranger coming for the first time to reside in Birmingham.

"Believe me to remain,

"My dear Sir,

"Your much obliged and most obedient humble servant,



"E. Thomason, Esq."

" Edinburgh, 11th Jan., 1829.

"Dear Sir,

"I thank you for the honour of your handsome present of scientific medals. The project is happily conceived, and beautifully executed. I have shown them to some friends who admire them very much, and are desirous to know if they will be sold singly, or only in a 1829. series, and likewise the price. I mean to exhibit them to-morrow to my class.

"I hope you will excuse me, however, for making one or two remarks. Though the statements are generally correct, several inaccuracies have been committed; for instance, in the medal of Optics, the 'index of refraction' is called the 'magnifying power,' which is quite a distinct thing. But what vexes me the most is the bad spelling with which your engraver has sadly disfigured his work: we have projected for projected, and various other mistakes equally gross. Could you correct these by softening and again hardening the die? In that case the whole series might undergo a revision, and the medals would be creditable to our national skill and literature. But why did you admit Phrenology among the sciences? It should be placed beside Astrology, as only fit to occupy crazy old women.

"I ever am,

"Dear Sir,

"Very truly yours,

John Leshie

"I have no objection, however, to see Phrenology as an article of trade, since silly people must be amused; but call it not science."

"St. Mary College, 12th Jan., 1829.

"Sir,

"An absence from college of a few days has delayed the examination and acknowledgment of your valuable and splendid present. I feel deeply indebted to you for your inimitable collection of medals, and for the

flattering terms in which you condescend to speak of our 1829. establishment. Be pleased to accept my most grateful thanks, and those of the rev. gentlemen connected with me. They are coupled with one common expression of admiration for the taste, science, and exquisite mechanical skill with which the series has been executed. a collection that will celebrate your own memory, and, through you, will add a new character to the town of Birmingham, already illustrated by genius, talent, and practical science beyond any manufacturing town in the British empire.

"I beg you to accept the assurances of esteem with which I am.

"Sir.

"Your obliged and obedient servant,

Many Weill

"To Edward Thomason, Esq."

"Whitehall, January 14, 1829.

"Sir,

"I have the honour to acknowledge the receipt of your letter of the 6th of January, accompanying a series of medals exhibiting a novel and very ingenious application of the fine arts to the promotion of science.

"Although it is contrary to my usual practice, as Secretary of State, to accept offers of a similar nature which I occasionally receive, I cannot reconcile it to myself to return to you the result of labours so creditable to you, and so gratifying to a friend of science.

"I beg to thank you very sincerely for the series of

1829. medals, and for the flattering assurances with which they have been conveyed to me.

"I have the honour to be, Sir,
"Your obedient servant.

Arher Seel

"Edward Thomason, Esq."

" Howick, Jan. 14, 1829.

### "Dear Sir,

- "I have this day received your kind letter, with the collection of medals.
- "It is a most interesting one, and reflects the highest credit on your taste and spirit of enterprize.
- "Requesting you to accept my sincere acknowledgements for your flattering attention,

"I remain, dear Sir,
"Your most obedient servant,

Durham

"E. Thomason, Esq."

"No. 45, Bridge Street, Westminster, Jan. the 16th, 1829.

# "Dear Sir,

- "On my arrival here last Wednesday evening I found your extremely curious box of medals, for which I beg to return my best thanks.
- "I have already commenced making a most appropriate use of them. They were last night exhibited in the Library of the Royal Society after the meeting; and

to-morrow I shall take them to my evening party at the 1829. Thatched House.

"Believe me, dear Sir,

"Your much obliged and faithful humble servant,

Quinfillut

"E. Thomason, Esq., Birmingham."

"Dublin, 27, Baggot Street, 21st Jan., 1829.

" My dear Sir,

"I have just received your handsome present of your scientific and philosophical medals, and beg leave to return you my most grateful thanks for such a flattering mark of your attention and kindness.

"The design of the work is truly ingenious, and the execution worthy of the present advanced state of British art. I have shewn the work to a number of my friends, who have all expressed themselves highly gratified. I have also left it for the inspection of the Members of the Royal Dublin Society, and shall take the earliest opportunity of laying it before the Royal Irish Academy.

"I hope Mrs. Thomason and your son are well, to whom I beg my best respects; and

"I remain, my dear Sir,

"Your faithful and obliged, &c.

Edm Bavy

" Edward Thomason, Esq."

"Arlington Street, January 26, 1829.

"Sir,

"The receipt of your obliging letter of Dec. 31,

1829. and of the box of medals that accompanied it, ought to have been sooner acknowledged. This delay, however, was merely accidental, and did not proceed from my being either unthankful for such a present, or insensible to the merits of so distinguished an artist. I am quite aware how much honour your labours have done to the town of Birmingham, and I am highly gratified by the terms in which you have been so good as to offer to me a specimen of the result.

"I am, Sir,

"Your faithful and obedient servant,

Dudley .

"My dear Sir,

"I had intended myself the pleasure of calling on you to-day, but found, by a call in Henley Street, that you were out with Lord Ferrers. I have to offer you my best thanks for your very handsome and interesting present, which I assure you I highly prize. The other copy, or rather series, is for Sir M. P. Phillipps, Bart., to whom I will transmit it. He is a gentleman of considerable fortune, and great literary and philosophic taste. He saw Lord F.'s copy at my conversazione, on Wednesday week, and was solicitous to obtain one. If you should be in town on Wednesday next, perhaps you will do me the favour to look in here, any time after nine, and I shall be happy to shew you a few things in my way, and introduce you to a few savans.

"Believe me,

"Yours very truly and obliged,

Mittynow

<sup>&</sup>quot;London, Jan. 26, 1829."

"London, Jan. 27th, 1829.

1829.

"My dear Sir.

"That I have not more early acknowledged your valuable and splendid present has not, I can assure you, been owing to indifference to your kind-No one can be more sensible of your great attention than I am, and no one, I apprehend, can appreciate more highly the spirit and talent displayed in the series of medals, for which I now offer you my best acknowledg-I have felt anxious to make known your efforts, in the cause of science and the fine arts, to my intelligent friends; and I have fortunately had several convenient opportunities, the medals having been exhibited to Dr. Lardner, Professor D. Morgan, Dr. Conolly, and other individuals belonging to the London University, as well as to several Cambridge men, by whom they have been invariably admired and applauded. Indeed I regret that you could not hear the expressions of delight which a contemplation of this beautiful and original treasure of knowledge has produced; for it would at least demonstrate, whatever may be the ultimate fate of the undertaking, that you have succeded in obtaining abundance of intelligent approbation. I sincerely hope, notwithstanding, that abundant substantial success yet awaits you; and that you will experience from the public a suitable compensation for the labour, the genius, and the capital, devoted to this elegant and attractive specimen of your manufacturing skill. The metallic book of science, is not, I learn from Mr. Gall, yet published, and I have, therefore, to thank you also for having honoured me with one of the earliest copies.

"Mr. Gall, who speaks with great pleasure of your 1829. attention to him when in Birmingham, speaks of your intending soon to visit London. Should this plan be realized, you will not, I trust, forget to give me an opportunity of manifesting my recollection of your hospitality, when Mrs. Birkbeck and I had the good fortune to be your guests. The occasion of your journey, I am happy to hear, is likely to lead to a dazzling testimonial to your merit; not so dazzling, however, I hope, as to throw entirely into the shade one who, if he have not regal honours to bestow, has made, and will ever continue to make, the most zealous efforts to do justice to one of the noblest spirits, in regard to manufacturing enterprize, that he has ever encountered. We understand (for Mrs. Birkbeck partook of Mr. Gall's gratifying communication) that Mrs. Thomason is likely to accompany you to town; that we should be delighted to see her also in Broad Street, I hope it is quite needless to offer her a

formal assurance.

From the interest which you have taken in the London University, you will be glad to learn that it has been successful beyond the expectation of its most sanguine supporters. It now numbers, in its different classes, about five hundred and forty students, and is every day receiving new names, in addition to a long and respectable list of proprietors. The public see clearly, in despite of the attempts made to defame it, that its objects are honest and useful; and the impression is becoming, in all directions, most favourable and encouraging. Your name has been often respectfully mentioned by the Council, and every individual in it would feel proud to display to you the progress that we have already made.

"Mrs. Birkbeck joins in kindest regards to Mrs. 1829. Thomason and yourself.

"Your obliged and faithful friend,

George Birkbeck

"E. Thomason, Esq."

"Rome, Feb. 21, 1829.

"Sir,

"I hasten to return you my best thanks for the very handsome manner in which you have been so good as to present me with your splendid and interesting series of scientific and philosophical medals. I shall have the greatest interest in examining them on my visit to Alton in the month of June next, and hope, during my short stay in England, to have the pleasure of returning you my thanks in person, and of congratulating with you on the success of your enterprize. The arts and sciences were already your debtor to a large extent; but you appear now to have increased the obligation in a manner which will associate your name for ever with them, and immortalize you together.

In writing to you from a city which has at all times been celebrated by some of the most astonishing efforts of human genius; which possesses the finest monuments which the arts and sciences have ever produced; and which is, at the same time, the metropolis of the Christian world, I cannot resist the temptation of expressing my delight at the prospect of the renewal of a friendly intercourse, after so long an interruption, between the Court of Rome and the Court of England. It will be one of the happy effects of the removal of those civil

1829. disabilities, on account of religious opinions, which have so long distracted the Empire, but which a wise and a liberal policy is now about to destroy for ever, for the purpose of consolidating the strength of a whole people in one eternal bond of amity and peace.

"I have the honour to remain, Sir,

"Your most obedient and obliged servant,

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#### MR. THOMASON'S MEDALS.

(From the Courier Newspaper, January 18th, 1829.)

We have had an opportunity of inspecting a series of scientific and philosophical medals, lately struck at Mr. Thomason's manufactory at Birmingham. They form a sort of metallic encyclopædia of useful knowledge, which, of course, as far as durability is concerned, are undoubtedly certain to outlive every record on paper, parchment, and similar materials. The medals are three inches in diameter, and a trifle thicker than a crown-piece. Each medal bears raised inscriptions on both sides, expressive of the various axioms, definitions, general or special, truths and observations of data and phenomena, relative to the science on which it professes to treat. As a source of information, there are some inconveniences attending the study of these medalsnamely, that the reading the inscriptions is very distressing to the eye, the refraction and every-varying angle of incidences of the light upon the polished

surface dazzles and fatigues the sight, and is more than 1829. what most ordinary visions can endure for any length of The voluminousness and higher price of the medals is likewise an objection that renders typographical legends preferable. Had the ancients committed their inventions and discoveries of practical utility to the keeping and preservation of numismatic monuments, many a valuable arcanum, the recovery of which has long and vainly puzzled modern ingenuity, would not have been lost to us. We are led to these reflections by a glance at the very first of Mr. Thomason's medals, which treats of Mechanics. Had the architects of the pyramids left us a description (upon almost imperishable, or, at any rate, but slowly-decaying medals) of the mechanical apparatus by which they raised such huge masses of stone to enormous heights, we should be less puzzled than we are to trace the construction of the now invisible instrument from the still visible effect.

No. 1 of Mr. Thomason's Medals treats of Mechanics. Statistics, and Dynamics; and, though it was impossible to crowd the contents of the innumerable works written on these subjects into a small space, Mr. T. mentions the mechanical powers, the lever, the wheel and axle, the pulley, the inclined plane, the wedge and screw, the theory of friction, pressure, percussion, &c., and as much of their application to useful purposes as the limited nature of the space will admit of.

Medal 2 treats of Optics. It was equally difficult, of course, for Mr. T. to compress the contents of Sir Isaac Newton's Treatise on Optics, the Theory of Light, and the more recently observed phenomena of Polarisation, into a circle of three inches diameter; but he has skilfully selected the most remarkable data.

- 1829. Medal 3 presents, on the obverse, an abstract of the phenomena of Electricity, and on the reverse those of Galvanism.
  - 4. Hydrostatics and Hydraulics.
  - 5. Metallurgy and Specific Gravity, or the relative weights of various fluid and solid substances, compared to distilled water, at a given temperature, as the unity.
  - 6. Chemistry—a science so vast, that only a few generalities find room on the narrow surface of a Medal.
  - 7. Astronomy—contains distances of the Planets from the Sun, their diameters, orbits, &c.; the Zodiacal Signs. The spots in the Moon are in a style of dead silver, which produces a very handsome effect.
    - 8. Mineralogy. 9. Geology. 10. Crystallography.
  - 11. Mountains—the summits of Chimborazo, Cotopaxi, &c., South America, and of Mont Blanc and Mount Ætna, in Europe, are delineated in dead silver, to show the difference of elevation. At the bottom is Snowdon and other mountains in Britain.
  - 12. Phrenology. This Medal represents a full face, and profile of a head, with all the organs numerically pointed out. Both heads are elegantly executed; and, considering the variety of the inscriptions, but few typographical mistakes occur in any of the medals. We cannot help noticing, however, that, in the third organ of this profile, inhabitiveness is spelt inhibitiveness; as well as elsewhere cubic foot has been written with a q—but these are trifles.
  - 13, 14, 15, 16,—referring to steam-engines by Newcomen, Watt, and Perkins,—are of great interest to those who watch the rise and progress of useful inventions. A magnifying glass accompanies the collection, which is enclosed in an elegant case, lined with red velvet, and

will, no doubt, form a valuable addition to the cabinets 1829. of the curious, who may supply themselves at the manufactory of the patentee, Mr. Edward Thomason, Church Street, Birmingham, who, it seems, holds his Majesty's letters patent for making gold and silver mounted medals and coins; and had the honour of lately presenting a series of his medals, on gilt plate, splendidly bound, to the King; when his Majesty was pleased to accept the same."

"Berlin, 30th March, 1829.

"Respected Sir,

"After receiving your letter, I inquired upon the arrival of your medals. The medals are in his Majesty's hands; my opinion has been asked on the subject, and you will, I hope, be favoured by an answer in a short delay.

"You allow me to present my respectful compliments to your lady.

"I am, Sir,

"Your most obedient humble servant,

Buston

"To Edward Thomason, Esq."

"Paris, le 17 Janvier, 1829.

"Monsieur Edward Thomason,

"Dans un de vos voyages à Paris, et lorsque vous êtes venu visiter la monnoie royale des mèdailles, 1829. vous avez eu le bonté de m'offrir vos services, pour tout ce qui pourrait avoir rapport à l'art numismatique.

"Je viens maintenant, Monsieur, vous mettre à contribution: l'administration devant faire un travail sur la fabrication des mèdailles en or, argent et cuivre, aurait besoin de quelques renseignements. Je prends la liberté de m'adresser à vous, avec la certitude que vous ferez tout ce dont vous devez être persuadé qu'elle ferait pour vous.

#### "Servoir.

- '1. Médailles d'or et d'argent.
- "Le prix de médailles est-il fixé d'après leur poids? Quel est, dans ce cas, le prix par unité de poids? (fabrication comprise.) Quel est le titre de l'or et l'argent?
- "Le prix de la fabrication varie-t-il suivant le module ou diamètre des médailles, et quil est-il?
- "La fabrication se regle-t'-elle à prix defendu ou debattu? Quel est, dans ce cas, le prix moyen pour les médailles du diamêtre de 16 lignes—18—20. 22—24—26—28—30—32—et 36 lignes, les jetons ronds et octogennes?
- "2. Médailles de bronze (alliage de cuivre et d'etain au 10) ou de cuivre bronze.
- "Le prix de fabrication se paye-t-il d'apres leur dimension?
- "Le prix des médailles est-il fixé d'après leur relief, ou les difficultés que peut affair leur fabrication?
- "Dans le premier cas, quel est le prix pour les divers modules (voyez d'autre part)?
- "Dans le second, qui rentre dans la cathégorie des prix defendus ou debattus, quels sont les prix moyens.
- "Je crois utile de joindre à la prèsente un tarif des prix de la monnoie des mèdailles de Paris. Cette pièce

peut étre utile au dévelopement des questions ci-dessus, 1829. et donne des renseignements indispensables sur nos modules et nos titres.

"Je vous demande mille pardons de vous donner tant d'embarras; non seulement vous pouvez sur l'administration, mais encore sur moi particulièrement; je me ferai toujours un vrai plaisir de vous être agréable.

"J'ai l'honneur d'etre avec la considération la plus distinguée,

## " Monsieur.

"Votre très-humble et très-obeissant serviteur,

Decoller "Chargé de la vente à la monnoie

royale des médailles.

"A Mons. E. Thomason, Manufacturier, Birmingham."

At this period I finished a fine medal of Sir Walter Scott. The obverse of this medal was considered a very fine likeness of him, and the allegory of the reverse was generally admired. The legend, "Truths severe in fairy fiction dressed."

"Palais Royal, 9 Fevrier, 1829.

"J'ai reçu, Monsieur, la belle médaille de Sir Walter Scott que vous avez frappée et que vous voulez bien m'offrir. Je suis sensible à cette attention de votre part 1829. dont je vous remercie avec plaisir. Recevez, Monsieur, l'assurance de mon sentiment pour vous

"Votre affectionné.

Souis Frilippe Worleans)

"M. Edward Thomason, à Birmingham, Vice Consul de France."

At this period I finished a fine medal to commemorate the emancipation of the Catholics. The allegory was highly approved: the legend, "Ireland pacified." I presented many of them; amongst others to the Lord Mayor of London, the Duke of Wellington, the Duke of Norfolk, Thomas Marrable, Esq., John Nash, Esq., Architect to the King, &c.

"Mansion House, London, 17th April, 1829. "Sir,

"I have this day had the honour to receive a medal commemorative of the great event which has just taken place, on the removal of the civil disabilities under which our Roman Catholic brethren have so long laboured. The Duke of Wellington is now immortalized both as a warrior and a statesman. I have no doubt all those advantages to the country which the most sanguine politician expected will be realized, that "Ireland" will

be "pacified," and Protestant and Roman Catholic will 1829. in future meet like friends and fellow Christians. As an individual who took some share in the discussion upon this great national question, I assure you the medal is most acceptable to me, both on account of the event it commemorates, and the beauty and excellence of the workmanship displayed by the artist.

"I have the honour to be,

"Sir,

"Your faithful and obedient Servant,

Mompsur

"Lord Mayor of London.

"Edward Thomason, Esq."

"London, April 18th, 1829.

presents his compliments to Mr. Thomason, and begs leave to return his thanks for his letter and the medal which he has been so good as to send to him."

"London, April 18th, 1829.

"Sir,

"I beg to thank you for the very handsome present of the medal which I received yesterday. The execution of it is admirable, and the event it records will, I trust, not only ensure the pacification of Ireland, but, under the shield of civil and religious freedom, consoli1829. date the glory and prosperity of the empire. It is no small gratification to see this early expression of the liberal sentiments of so distinguished a town as Birmingham.

"I remain, Sir,

"Very sincerely your humble servant,

Norfolk

"Edward Thomason, Esq., Birmingham."

"No. 14, Regent Street, 12th April, 1829. "Dear Sir,

"Excess of business has prevented me acknowledging your handsome present earlier. It does your talent and industry the greatest possible justice; and permit me to wish you success in your aspiration to fame, and which your enterprizing spirit cannot fail to procure.

"I am, dear Sir,

"Very sincerely yours,

"Edward Thomason, Esq."

"Carlton House, July 18.

"Dear Sir,

"The medals have arrived safe, and in beautiful execution; for myself, thanks, thanks, thanks.

"Sir Benjamin will answer after to-morrow, but I 1829. thought you would like to know that they are here.

"Yours ever faithfully,

This. Manable

"Devil of a bustle I have been in for many days."

"Chester, June 29th, 1829.

"My dear Sir,

"I wrote to you last week to acknowledge the receipt of your letter. I now address you, as I have to impart what I know will give you pleasure. His Grace the Duke de Chartres returned yesterday evening, and I immediately waited on his Lordship at the Royal Hotel, who appointed nine o'clock this morning for me to accompany him to Eaton Hall, which I did; and a great treat it was to his Lordship, the General, and another gentleman who travels with him, as well as to myself. We went over the house and gardens, greatly improved since I last saw them, indeed they are most superb, and I am informed the house, &c., cost Lord Grosvenor one million and a half of pounds. The Duke brought me in his carriage to my own house, and then I shewed him my collection of pictures, about three hundred, in two rooms, with which he was much pleased; indeed he is a very fine and accomplished young nobleman, and has given me an invitation to France.

"I am now writing to you on a subject I have long intended, which is to recommend to you to manufacture a wine funnel on a new construction. I have mentioned this subject to persons, and have been informed that

1829. such is invented, but I never saw one. You are aware that those now used, for want of air, let the wine, in decanting, spill over the neck of the bottle. Now cannot you make one to rise an inch or two above the neck of the decanter to admit of air, which would obviate the inconvenience I allude to, and I think would be a good speculation for yourself?

"Compliments to Mrs. Thomason and your sister, whom I hope are well, being,

"My dear Sir,

"Your faithful and obedient servant,

Withanwood Follida

"Edward Thomason, Esq., Birmingham."

"Wharton Hall, Aug. 14, 1829.

The Britop of London presents

his compliments to Mr. Thomason, and was so much gratified himself with what he saw at Mr. Thomason's, that he could not allow Mr. Beaumont, nephew of Sir George Beaumont, of this place, the bearer of this note, to pass through Birmingham without desiring him to look at the Warwick vase, and other specimens of Mr. T.'s art, which the Bishop himself saw with so much pleasure."

"Paris, le 28 Aout., 1829.

"Je m' empresse, Monsieur, de vous annoncer que le Roi, voulant vous accorder un témoignage de sa bienveillance particulière et reconnaitre l'hommage que vous lui avez fait d'une collection de médailles frappées



ONE OF THE 1037 BRONZED MEDALS PRESENTED WITH THE WHOLE SERIES BY CHARLES XT KING OF FRANCE.

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•

en l'honneur des sciences, m'a autorisé à vous remettre, 1829. en son nom, la collection complette des Médailles de France. Je vais prendre less mesures nécessaires pour que cette collection vous parvienne incessamment.

"Je me félicite, Monsieur, d'être chargé de vous transmettre cette marque de la munificence de Sa Majesté.

"Recevez, Monsieur, l'assurance de ma considération distinguée.

"Le Pair de France, Ministre d' Etat Intendant Général de la Maison du Roi.



"M. Edward Thomason, Manufacturier, à Birmingham."

The series consists of-

Reign of Charles VIII. A.D., 1400.

Reign of Louis XII.

Reign of Francis I.

Reign of Henri II.

Reign of Francis II.

Reign of Charles IX.

Reign of Henri III.

Reign of Henri IV.

Reign of Louis XIII.

Reign of Louis XIV.

Reign of Louis XV.

Reign of Louis XVI.

Reign of Louis XVIII.

Reign of Charles X.

"Combermere Abbey, Dec. 29.

"Sir,

"I am favoured with your letter of the 24th inst., and am sorry to say that the Duke of Wellington, left me this morning. I proposed to his Grace paying a visit to Birmingham on his return home, but he was obliged to go from hence into Northamptonshire to meet the Duke of York; his Grace, however, promises to come here next summer, and he will then be happy to avail himself of the opportunity of visiting Birmingham.

"I am, Sir,
"Your most obedient humble servant,

Combinen

"E. Thomason, Esq."

1830. To shew the state of my manufactory in this year, I refer to page 177, in West's Topography of Warwickshire, published in 1830, in which he says—

"On quitting the Blue Coat School, and proceeding westward, Colemore now presents itself, forming the northern boundary of St. Philip's (Churchyard) Square, with Church Street nearly in the centre. Here the attention of the first distinction has for many years been arrested, in viewing the produce of native talent in the manufactories and show-rooms of Mr. Thomason; they

may be termed, to a considerable extent, an epitome of 1830. what Birmingham exhibits in metallurgy.

"In October, 1828, the writer of this article requested permission of the proprietor to inspect his manufactory and show-rooms, which, with his accustomed civility, was immediately complied with, and as the visit was not one of mere curiosity, but to record the various branches of manufacture, the proprietor politely offered to walk over the whole establishment with him, and explain any process that might be required. The appointment was made for ten o'clock in the morning, and he had the good fortune to be joined at the same moment by Mr. Oldham, the celebrated engineer of the Bank of Ireland; upwards of four hours were employed in exploring the various workshops, as they conveniently lay in succession, commencing with one where ivory and pearl-handled knives and forks are mounted, with and without ferrules. was interesting to observe the dexterity used to complete the handle of a knife, from the sawing a slab off the elephant's tooth, to the formation and polish of the ivory; but beautiful as the polish appeared from the implements employed, that of the hand alone made it the more perfect.

"This shop led to a succeeding room, where the process of plating upon steel arrests and interests the attention for sometime. It is curious to witness the powerful affinity between steel and tin; the latter forms the essential agent to lay between the steel and the silver. A medium must be obtained that has an affinity for both; this medium is found as above, which is afterwards ingeniously expelled by compression at a certain temperature, and the rolled silver, which is of ample thickness, is attached firmly to the steel. This mode of plating has, however, its limits at present, being principally applied

1830. to small articles, such as spoons, forks, and dessert blades; and never yet has been used upon candlesticks, waiters, tea-urns, or articles of a similar description. The next room was for bronzing upon copper, such as small vases, lamps, &c. The two classes of bronzing was shown and explained. One formed by acids, creating an oxide from the piece to be bronzed, the other by precipitating the oxide already formed from the sulphate of nitrate of copper. The next workshop was confined to the making of silver mounted epergnes, branches, and candlesticks, the soldering and fixing on the silver edges, the rolling of figured patterns upon silver mountings, &c. In an adjoining room the process of polishing silver cups and waiters was carried on. In the next room was displayed the ingenious and curious mode of cutting the worms upon both hollow and solid shafts by machinery. The process of drawing hollow brass tubes, and brass upon iron tubes, are all worthy of observation.

"In proceeding through the room for modelling and sculpture, the principal article under execution in this department was the shield of Achilles, to be manufactured in gold plate. The room in succession was solely devoted to the burnishing of plated wares by the hand. An adjacent room comprises a great deal to arrest the attention—1st, the forming and burnishing of buttons by machinery; 2d, a very complicated machine for making button shanks; 3d, a beautiful machine for engraving on buttons, &c.; 4th, an engine for the cutting of wheels, and for chasing the flowers upon waiters, &c.

"The next in succession was a workshop of another description, where powerful stamps, numerous dies cut on wreaths of flowers, figures, and ornaments are de-

posited. In this place impressions are produced upon 1830. rolled and flattened silver with one concussion.

"In the succeeding room silver is taken from the furnace and poured into ingots of the sizes adapted to the different sorts of works in the establishment; the forging bars of silver into table spoons and forks was carried on in this part of the concern. In the next department, metal into square ingots for plating and rolling; and in another shop is performed the operation for plating or attaching the slab of silver to the slab of copper, prior to its being rolled into sheets. It was remarked that this process was not generally shewn. The furnace had an extraordinary quick draught, and the union of the metals requires much skill and judgment.

"The foundry, where a fine statue of his Majesty was cast in copper, adjoins the foregoing shop. Nearly adjoining is the brazier's shop, where, with polished steel hammers and anvils, the large silver and plated dishes and dish covers, &c., are beaten into form. In the adjoining room is the medal department, where, with powerful presses with fly-wheels, the medals or coins are manufactured; the fine dies for these medals are arranged in regular order in the conservatory in one of the warehouses. Mr. Thomason remarked that he held the greatest number of medal dies of any person in Europe, except the King of France.

"The next is the place where servants' livery buttons are stamped with crests, arms, &c., and for which there are one thousand dies.

"Adjoining is the lapidary room, where the real and imitative gems are cut into facets; there is also another adjoining room, where the general jewellery department is conducted, from the melting of the gold to the rolling

1830. of it, and drawing it into ware; the setting of real pearls, &c., is also carried on in this department.

"The last room in the manufactory is used for the turning, sinking, and engraving of dies, a process requiring the greatest ability both in design and execution.

"Another portion of this splendid establishment, consists of warehouses and show-rooms, where the whole of the goods, when finished, are displayed for sale.

"First, the vase room, containing a faithful copy of the celebrated vase at Warwick Castle, of exactly the same dimensions, in which every part is as correctly formed as possible, the only difference is in the material, the one at Warwick Castle being in marble, and the work of Lysippus, who flourished, in Greece, 325 years before the Christian era, in the age of Alexander the Great. The vase made by Mr. Thomason, after seven years' labour, is metallic bronzed; the bronzing is unique and beautiful, and in the course of five years is so softened down as to be in perfect harmony.

"The second show room contains bronzed Corinthian capitals, and balustrades for staircases, &c.; the third room is filled with *papier machée* trays and cabinets, the most costly tortoiseshell and other dressing cases, writing-desks, work-boxes, &c., and bronzed wares.

"The fourth room is a very lofty one, lighted by three domes, under one of which stands the bronzed copper statue of his present Majesty in his robes. It was modelled, cast, and sculptured in the manufactory. This room is called the gold and silver room, and contains the finest goods of this description, and articles of vertú. The fifth room comprises medals in gold, silver, and copper, and a variety of bronzed vases.

"The sixth room is a long gothic gallery, with twelve

windows, and contains a variety of cut-glass lamps. This 1830. room contains a splendid shield; it is three feet four inches in diameter, or ten feet in circumference. The centre of the shield represents the Duke of Wellington and his Staff witnessing the troops passing the river Bidassoa, from Spain into France. The staff consists of numerous fine figures, and are likenesses of Lords Dalhousie, Beresford, and Hill; the Duke of Wellington; the Lords Niddrie and Lynedoch; Sir Charles Doyle, General Archibald Campbell, the Earl of March, Marquis of Worcester, and the Prince of Orange.

"The seventh, eighth, ninth, and tenth rooms are four quadrangular rooms, forming a square, and filled with the richest silver-mounted plated wares.

"In the eleventh room appeared a service of plate, exhibited as one adapted for twenty years.

"In the twelfth and last room is a variety of plated articles upon steel, and numerous mechanical inventions for which Mr. Thomason has obtained patents.

"Mr. Thomason has just produced, after years of labour and great ingenuity, an admirable and unique series of philosophical and scientific medals, sixteen in number, three inches in diameter. Mr. Thomason has commenced with mechanics, and closed with a complete history of the steam-engine, in which last, and in its proper place, he has paid a well-deserved and handsome tribute to his old master, Mr. Boulton, of Soho."

It is very singular that in one of the private rooms at this moment, some of my best artists had been occupied for two months, making my design of a *Shield of Faith*, in silver, three feet nine inches in diameter. As it was 1830. just on the eve of completion, I will here state its historical allegory. The extreme edge is a circle of cherubs, the points of whose extended wings touch each other, and the border, which is very deep, is surrounded with historical devices upon Faith, in stellated compartments, twenty-four in number.

The centre was concave, and in it was a whole independent figure of Christ crucified, twelve inches in height, and of solid silver, screwed to its place in the concave centre, of pure dead white, which is reflected by the burnished concave. The whole is of great weight, and placed in a strong mahogany case, fronted with one pane of plate glass. It is universally admired for its rarity and character, and stands in the establishment as my private property.

I had been engaged for years upon the important series of Bible medals, of sixty in number, three inches across or in diameter, the obverses copied from pictures by the ancient masters, and the reverses containing, in the space of the sixty medals, a few condensed remarks upon the history of the Bible.

At this period (April, 1830) my artists were upon the finish of the dies relating to the Holy Scriptures. I took impressions in wax from about ten of them, with a determination of proceeding to Windsor to show his Majesty George IV. what I had been for some years perfecting. His Majesty was delighted with the thought of such an achievement, and expressed his astonishment and approval of so large a series of medals, and upon such a divine history, being done by his subjects, and said, "This is a work that shall not be hid under a bushel." He commanded that I should take them down to Brighton, and lay the facts before Mr. Peel, exhibiting

1830.

the ten specimens, but not to say that I had previously been at Windsor. I arrived at Brighton on the following morning, clothed with a letter, however, to Mr. Peel from the Marquis of Conyngham, in case he should object to make an appointment for an interview, as the Prime Minister is always extremely averse to see any individual upon any matter of business without an official introduction from some other Minister; he was, however, so polite as to acquiesce in my requests, as will appear by the following note from him:—

Me Suc presents his compliments

to Mr. Thomason, and will see him to-morrow morning at eleven o'clock.

Orton House, Brighton, April 16, 1830.

On my informing him of the nature of my journey to Brighton, he could scarcely credit the statement that I had just completed sixty large medals of three inches in diameter, from the creation of Adam to the Ascension, the obverses containing copies from the Ancient Masters. He said, "How can this be, when it is not twelve months since you finished your medallic work upon the I informed him that four of my artists had sciences?" been employed for some years in engraving the dies for this work, and that the last die would be finished in ten days; not one of the dies were at present hardened, and that the public knew nothing of the work. I then laid before him the ten wax impressions, which so much astonished him that he retained them, and said he would see the King respecting them on the following morning. His Majesty, however, was taken ill that very evening,

1830. and did not recover the attack. In July I addressed the following letter to (now) Sir Robert:—

"Birmingham, July 6, 1830.

"Sir Robert,

"I most sincerely trust that I may not be thought intrusive in addressing you, but as it has pleased Almighty God to remove our most gracious Sovereign, the petition which you were so kind as to receive from me of course becomes now inapplicable. I have consequently written another adapted for his Majesty King William the Fourth, and I anxiously entertain the hope that you will continue your kindness towards me, and present the petition which I have now drawn up to his present Majesty.

"I am particularly desirous to present my gift of the five splendid volumes of the sacred series to his Majesty at the first levee.

"The whole have remained sealed up, and I think you will be pleased to know, that, although many weeks have elapsed since you favoured me with the honour of an interview, yet my artists have faithfully kept the secret, and not divulged this extraordinary achievement.

"I have the honour to be, Sir Robert,

"Your devoted and obedient servant,
"EDWARD THOMASON."

The following is the answer I received:-

"Whitehall, July 8, 1830.

"Dear Sir,

"I cannot have a doubt that his Majesty will most readily give you an opportunity of presenting

to his Majesty, on the first levee, the splendid work of 1830. which I have already had the pleasure of seeing a specimen.

"I am, dear Sir,
"Very faithfully yours,

RobertSeel

"Edward Thomason, Esq."

In the month of July, I had the honour to present to his Majesty William IV., at the levee, the series in silver, which his Majesty was graciously pleased to accept, and receive. The novelty and execution of the work caused so much conversation, that I made up my mind to present the series, put up in five splendid volumes, to every Potentate in Europe, &c.

During the interval from April 16th to July 6th, the whole of the one hundred and sixty dies passed the ordeal of hardening; a very anxious process, and although in the usual calculation one out of eight is expected to be cracked or broken, yet it so occurred that not one of these was broken in this difficult process; and the workmen observed that as "righteousness exalteth a nation" so were these preserved.

The series made of pure silver for the King, I confidentially showed to three artists of much taste and classical knowledge, and the following are their observations upon the merits of each medal:—

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FIRST

×	KEDAL.		Copied from the Painting of		OBSERVATIONS.
First	:	:	Paul Veronese	ADAM GAVE NAMES TO THE BEASTS OF THE FIELD AND THE FOWLS OF THE AIR.	In the extraordinary amplitude of the subject of this medal, the Artist has shown great merit; the happy, unaffected simplicity in the attitude and por- traiture of Adam viewing the variety of animals is truly chaste and sublime.
Second	:	:	Domenichino	DEN FRUIT IN THE GARDEN OF EDEN.	This medal represents our first parents in the Garden of Eden. The modest and beautiful attitudes of the figures are exquisitely pourtrayed, and the doubt and hesitation of Adam in receiving the forbidden fruit are evidently intelligible.
Тител	:	:	Guido	THE EXPUISION OF ADAM AND EVE FROM PARADISE.	In this medal the consciousness of guilt in both Adam and Eve is clearly depicted; and the attitude of the Angel with a flaming sword, commanding them to depart from the Garden of Eden, well imagined.
<b>Го</b> ивти	÷	:	Domenichino	CAIN SLAYING HIS BROTHER ABEL.	The Artist has in this medal shown much anatomical skill, in the muscular arrangement and position of Cain.
Firth	:		Paul Veronese	ENOCH CARRIED UP INTO HEAVEN.	In this medal, the rising of Enoch in the clouds to Heaven is sublimely supported; whilst the astonishment of his brethren on earth, around the altar of sacrifice, bespeaks rapturous surprise.
SIXTH	÷	:	Bandinelli	NOAH'S ARK FLOATING UPON THE WATERS.	This medal exhibits great skill in the water, and in the perspective of the distant hills.
SMVMATE	÷	:	N. Poussin	NOAH BUILDETH AN ALTAR, AND OFFERETH A SACRIFICE.	This medal illustrates, in the most elevated style of the art, the attitudes of plety and virtue in Noah and his whole family returning thanks to God for their de- liverance from the dreadful effects of the Deluge.

				4	U/				
This medal gives an excellent representation of the building.	The interesting effect of the appearance of conversa- tion between Abraham and Lot is most naturally en- forced in this medal, and displays much skill.	This medal is in a most masterly style of the art, showing the great caution and anxiety in Lot to retire with his two daughters in safety.	This medal possesses wonderful merit in pourtray- ing the agritated devotion of Abraham to the command of God, in his preparation to sacrifice his only child.	The grouping of Rebekah and her companions at the well, drawing water for Abraham's servants and camels, is a obef-deuver of the art,	_	The execution of this medal is a proud effort of skill in numismatic art. The position of Isaac and Ishmael, in their exertions to carry the dead body of their father, Abraham, is exquisitely managed.	In this medal, the anxious cunning of Bebekah to obtain Isaac's blessing for her favourite son Jacob, instead of Esau, her first born, is well imagined.	An effect of reconciliation is faithfully represented in the management of this medal.	This medal contains a group of figures, and is altogether in the best keeping. The bargain struck between Joseph's brethren and the Ishmaelite merchants is so happily pourtrayed as almost to convey the spirit of the conversation.
THE BUILDING OF THE TOWER OF BABEL.	LOT PARTING FROM ABRAHAM TO DWELL IN THE PLAINS OF JORDAN.	LOT AND HIS TWO DAUGHTERS ON THEIR JOURNEY FROM SODOM TO ZOAR.	ABRAHAM OFFERING HIS SON ISAAC FOR A SACRIFICE.	REBECCA DRAWING WATER FOR ABRAHAM'S CAMELS.	SECOND BOOK.	OF MACPHELAH BY HIS SONS.	ISAAC BLESSING JACOB INSTEAD OF ESAU.	RECONCILIATION BETWEEN JA- COB AND HIS BROTHER ESAU.	JOSEPH's BRETHREN SELLING HIM TO THE ISHMAELITE MER- CHANTS.
:	:	:	:	:	-	:	:	:	:
Bandinelli	Titian	Rubens	Carracoi	Poutsin		Rembrandt	Tistan	Titian	Guido
:	:	:	:	:	-	:	:	:	:
Еюнтн	NINTH	Твити	Егвуенти	Тиветти		Thirtenth	Гопяткити	Fifteenth	Sixtervie

KEDAL		Copied from the Painting of		OBSERVATIONS.
SEVENTERATH	:	Guido	THE INTERPRETATION OF KING PHARAOH'S TWO DREAMS BY JOSEPH.	This medal introduces much majesty in the attitude of King Pharach, seated upon his throne, surrounded by his Ministers, attentively hearing Joseph's interpretation of his two dreams.
Еюнтевити	:	Murillo	JOSEPH MAKETH HIMSELF KNOWN TO HIS BRETHREN.	This medal is quite seenic in its illustration, and consists of ten figures, each in earnest attention to the disclosure made to them by their brother Joseph.
Nineteenth	:	Rombrands	JACOB ON HIS DEATHBED CAL- LING TOGETHER HISSONS, AND BLESSING THEM.	This medal exhibits a rich and powerful conception of the art. The twelve sons of Jacob are reverentially receiving his blessing, and are in various attitudes of attention.
Twentieth	:	Poussin	MOSES DISCOVERED AND PRE- SERVED BY THE DAUGHTER OF KING PHARAOH.	This medal is very highly finished. The compactionate look of Pharach's daughter upon the child Moses, and the beautiful drapery of the dresses of here.
Twenty-First	:	Salvator Rosa	THE BOD OF MOSES MIRACU. LOUSLY CHANGED INTO A SERPENT.	The Burning Bush is faithfully delineated in this medal, and also the astonishment of Moses in witnessing his rod miraculously changed into a serpent.
Twenty-second	:	Michael Angelo	THE FIRST-BORN SLAIN THRO- OUT THE LAND OF EGYPT.	This medal of the Passover is truly imposing; the sublime yet swhil stitlinde of the Destroying Angel, and the management of the numerous bodies slain, show extraordinary merit.
TWENTY-THIRD	:	Michael Angelo	PHARAOH AND HIS HOST DROW- NED IN THE RED SEA.	It was thought impracticable to make this the subject of a medal, from the supposed want of the effect of light and shade, and the necessity of the great confusion essential to the allegory; the Artist has, however, completely overcome all these difficulties, and has preduced, of its class, one of the finest medals extant: Hterally displaying "the horse and his rider thrown into the sea,"

				40	9			
The confidence evinced in the character of Moses, and the anxious eagerness of the Israelites with their pitchers to receive the water, place this medal high in rank in the medallic art.		The group of the Israelites dancing before the mol- ten calf is accomplished with wonderful grace and ele- gance, both in the flowing of the drapery and the atti- tudes of action, which renders this medal distinct in its style and character.	This medal contains a faithful representation of the tabernacle, &c.	The attitude of Moses pointing to the Brazen Serpent, and the seeming belief of the Israelites in the miracle, are all well pourtrayed in this medal.	In this medal the attitude of Balaam smiting the ass, and the turning of the ass's head to reproach Balaam for smiting her, are truly expressive.	The attitude of Eleazer and his attendant, and particularly the priest who carries the hide of the red heifer, is admirably managed.	The division of the water east and west of the Jordan, and the priests bearing the ark upon the dry ground, are well conceived; and the encouragement Joshua appears to give to the multitude to follow is happily arranged.	The graceful and commanding attitude of Joshua, and the appearance of confidence which he seems to repose in the true God, are wonderfully depicted in this medal.
MOSES SMITING THE ROCK FOR WATER AT HOREB.	THIRD BOOK.	MOSES DESCENDING FROM THE MOUNT, AND FINDING THE 1S-RAELITES WORSHIPPING THE MOLTEN CALF.	THE ARK OF THE COVENANT, THE ALTAR OF INCENSE, THE BRAZEN LAVER.	Moses's brazen serpent.	BALAAM SMITING THE ASS WHO SPEAKETH BEFORE THE ANGEL.	THE SACRIFICE OF THE RED HEIFER.	JOSHUA DIVIDING THE WATERS OF THE RIVER JORDAN.	JOSHUA COMMANDING THE SUN TO STAND STILL
:		:	:	:	:	:	:	:
Murillo		Raphael	Bandinelli	Rembrandt	Carracci	Vandyok	Rembrandt	Rombrandt
:		:	:	:	:	:	:	:
Twenty-fourth		Twenty-fifth	Twenty-sixth	Twenty-seventh	Тwент т-егонтн	Twenty-ninth	Тивтісти	Teirt-first

MEDAL.	Copied from the Painting of		OBSERVATIONS.
Тивтт-весоир .	:	THE CHART OF THE TRAVELS OF THE CHILDREN OF ISRAEL FROM EGYPT AND ACROSS THE RIVER JORDAN.	This medal contains an excellent plan of the country from the river Nile to eastern side of the river Jordan.
Типату-типар .	Carracci	JAEL DRIVING THE NAIL THRO' THE TEMPLES OF SISERA.	The resolute appearance of Jael, the dying attitude of Sisera, and the surprise of Barak and his captain on entering the tent of Jael, are strikingly embodied in this medal.
Тиівтт-рочати	Carracci	FULFILMENT OF JEPHTHA's RASH VOW.	This medal exhibits, in a pre-eminent style of the art, the agitation of Jephtha's struggle between his promise to his God and his affection for his only daughter.
Тивту-гірти	Le Brun	SAMSON KILLING THE LION ON HIS JOURNEY TO TIMNATH.	This medal exhibits, in a high degree, the muscular attitude of Samson in tearing up the young lion.
Thirty-sixth	Le Brun	SAMSON CARRYING AWAY THE GATES OF GAZA.	The management of this medal, in describing the appearance of ease with which Samson carries off the gates of Gaza, is truly meritorious.
		FOURTH BOOK.	
Тивтт-беуеитн	. Michael Angelo	Michael Angelo   DAVID CUTTING OFF THE HEAD   OF GOLIATH, THE PHILISTINE.	This medal is executed with extraordinary merit The army of the Philistines is seen upon one hill, and the army of the Israelites upon the opposite hill, to witness the result of the challenge of single combat between Goliath, the champion of the Philistines, and David.
Тиікту-бібитв	Salvator Rosa	SAUL AND THE WITCH OF ENDOR.	The allegory of this medal is exemplified with singular effect and skill in the cunning appearance of the sorceress raising the apparition of Samuel before Saul.

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The singular death of David's son Absalom in his being entangled by the air of the head in the loughs of a tree, whilst his mule passes from under him, is faithfully represented in the medal, and reflects much credit on the artist.	The elevation of the magnificent building of the Temple of Solomon is well represented.	The majestic appearance of Solomon in judging the living child to the right mother is admirably effected in this medal, whilst the anxiety and affection displayed by the mother are exquisitely arranged.	The representation of Jeroboam, with his priest offi- ciating at the altar, and the attitude and appearance of the Prophet Ahijah foretelling his destruction, are well conceived and executed in this medal.	The appearance of faith and contentment in Elijah, in his banishment at the brook of Cherith, is happily illustrated; and the descent of the ravens, bringing him food, well introduced and cleverly scutptured in this medal.	The astonishment exemplified in Flisha, in the attitude and appearance of the Prophet Elijah carried up to heaven in a flery charlot with flery horses, is in this medal chiselled in the greatest purity of style.	This medal is extremely well represented, and executed in a high style of the art.	The fore-shortening of the whale in this medal is a work of considerable merit, and the sea and distance marked with peculiar skill.
ABSALOM SLAIN BY JOAB IN THE WOOD EPHBAIM.	SOLOMON'S TEMPLE.	SOLOMON's JUDGMENT.	JEROBOAM ORDERING THE MAN OF GOD TO BE SEIZED.	Paul Veroness ELLJAH FED BY THE RAVENS.	ELLIJAH CARRIED UP INTO HEA- VEN IN THE PRESENCE OF ELISHA.	THE SHUNAMITE'S SON BESTOR- ED TO LIFE ON THE PRAYER OF ELISHA.	Leonardi di Vinoi JONAH CAST UPON THE SHORE BY THE WHALE.
:	:	:	:	:	:	:	13.0si
Carracci	Bandinelli	Carlo Doloi	Corregio	Paul Verones	Raphael	Murillo	Leonardi di V
:	:	:	:	:	:	:	:
Тивту-мімти	<b>Говтіктн</b>	FORTY-FIRST	<b>Forty-second</b>	<b>Forty-THIRD</b>	<b>Говтт-го</b> ивтн	<b>Forty-PIFTH</b>	FORTY-SIXTE

MEDAL.		Cepled from the Painting of		OBSERVATIONS.
<b>Говтт-заукити</b>	:	Michael Angelo	THE OVERTHROW OF THE ARMY OF SENNACHERIB, KING OF ASSYRIA.	In this medal is represented the Angel of the Lord smiting the mighty men in the camp of the Assyrians, and the effect produced is truly excellent.
<b>Forty-eighth</b>	<del></del>	Carlo Maratti	SHADRACH, MESHACH, & ABED- NEGO IN THE FIERY FURNACE,	The mortification and disappointment exhibited by Nebuchadnezzar, and the distant view of Shadrach, Meshach, Abednego, and the Angel, are beautifully arranged.
Forty-ninth	:	Leonardi di Vinoi	Leonards di Vinoi JOB IN AFFLICTION REBUKING HIS WIFE,	This medal pourtrays an excellent specimen of the expression of faith and resignation in the figure of Job, whilst that of his wife exhibits the character of a faithless woman.
<b>Гитетн</b>	:	Vandyck	THE PSALMIST PLAYING UPON THE HARP.	This medal contains a most beautiful specimen of the numismatic art.
Firt. First	:	Raphael	DANIEL IN THE DEN OF LIONS.	This medal exhibits, in the picture of Daniel, confidence and fidelity: the quiescent state of the lions is managed with great effect.
FIFTY-SECOND,	:	Corregio	CÆSAR MURDERED IN THE SE- NATE HOUSE AT ROME.	This medal, which is called the Link Medal, or connecting medal from the death of the Prophet Malachi until the birth of Jesus, has on its reverse a chronolo-
LINE MEDAL	:			great table of the intervening events. The obverse is of the highest order of die engraving. Cæsar appears lying dead at the foot of Pompey's status, whilst Mark Antony seems literally speaking the oration over his lamented friend. The medal also represents Marcus Brutus, Decimus Brutus, Cassius, and Trebonius, in the Senate House.
F1774-тицар	:	Rubens	THE NATIVITY OR ADORATION OF THE WISE MEN.	This splendid medal represents the stable at the inn at Bethlehem. The Virgin Mary appears to hold the child Jesus on her lap with the most maternal and affectionate ease, and the whole is exquisitely grouped.

			413		
The care and attention with which Joseph appears to lead the ass, and the affectionate manner in which Mary is represented holding the child, render this medal extremely interesting.	This medal exhibits a full expression of condescension in Christ, whilst baptised by John, and the modest acquiescence in John the Baptist while performing the ceremony.	This extraordinary miracle of Christ is beautifully delineated in this medal; the sublime attitude of Jesus, and the expression of astonishment in the beholders of Lazarus rising from the grave, are wonderfully depicted.	This divine medal represents Christ sitting at supper with his twelve disciples: the artist seems to have been inspired with the subject. Christ has broken the appears literally to be saying,  "Do this in renombrance of me."  The twelve disciples, although varied in countenance, seem to be listening to their master with devoted admiration.	In this medal Christ's attitude of supplication is beautifully expressed, and the folds of the drapery exquisitely managed. Peter, James, and John are represented asleep.	In this medal is represented the crucifixion of Christ, and also the two thieves who were crucified with him; by the cross stand the Virgin Mother, Mary the wife of Cleophas, Mary Magdalen, and John.
JOSEPH AND MARY'S FLIGHT INTO EGYPT.	CHRIST BAPTISED BY JOHN IN THE RIVER JORDAN.	CHRIST RAISING LAZARUS FROM THE DEAD.	CHRIST INSTITUTING HIS LAST SUPPER.	CHRIST'S AGONY IN THE GARDEN.	CHRIST CRUCIFIED.
:	:	:		i	·
Rubens	Poussin	Murillo	Leonardi di Vinci	Carlo Doloi	Rubens
:	:	i	:	:	:
Figur-pourth	<b>Иртт-ріртн</b>	Fift-sixth	Fift-seventh	<b>Гірту-</b> вібитн	<b>Гірт</b> ұ-мімтн

MEDAL	Copied from the Painting of		OBSERVATIONS.
SIXTIETH	Corregio	CHRIST'S ASCENSION INTO HEAVEN.	This medal represents Christ's ascension into heaven from the midst of his disciples: their expressions of awful astonishment and advantion are most faithfully delineated, and the whole nerfected in the most ele-
			vated style of the numismatic art.

Medals speak all languages, and in a style suited to every person's capacity; they are wonderfully calculated to invite and allure the mind to knowledge, and to excite investigation, for sight is the most interesting to our senses, and it is the first effort of our reasoning faculties to endeavour to comprehend the meaning of what we see; hence they impress on the mind clear, strong, and lively apprehensions of what they represent, and

consequently become an artificial memory.

These observations will introduce to the young reader 1830. the nature of the work, and may induce him to read over my quotations from the Bible, which he will find a little farther on, and which, to the best of my humble ability, form a condensed history of the Bible, by filling up the history between one medal and the succeeding one; and it being blended with, and in the middle of the work, he cannot well pass it over. Indeed, on imparting my intention of thus taking the liberty of inserting my quotations, Dr. Ryder, the Bishop of Lichfield, remarked—"Although it must be extremely deficient in comparison with condensed histories written by learned divines, yet, from its position, there will be the greatest inducements for young persons to read it over, and thereby do more good than any other of an elaborate research!"

## "London, February 4th, 1830.

"Sir.

"Count Ludolf, the Sicilian Minister, has just asked me whether I knew, perchance, a Mr. Thomason, at Birmingham, and those medals of which he had presented copies to the King of Sicily, as his Majesty, highly pleased with them, wished to be advised what might be sent in return as a convenient token of his approbation. I told the Count that I saw here, two months ago, very handsome medals, with the inscription 'Thomason, Birmingham,' and that possibly you might be the person in question. Having promised to ascertain it, I beg, Sir, you will have the goodness to inform me whether you have presented those medals to the King of Sicily,

1830. and what token of his Majesty's satisfaction would be the most agreeable to you; for instance, an order, a ring, or a snuff-box.

I feel great pleasure in renewing you the assurance of the particular esteem with which I remain,

"Sir,

"Your obedient

Saron Vilous

"Edw. Thomason, Esq., His Prussian Majesty's Vice Consul, Birmingham."

"Chandos House, Feb. 6, 1830.

"Dear Sir,

"I keep the gold medal mentioned in my official letter, until you tell me the best mode of sending it to you.

"Believe me, dear Sir,

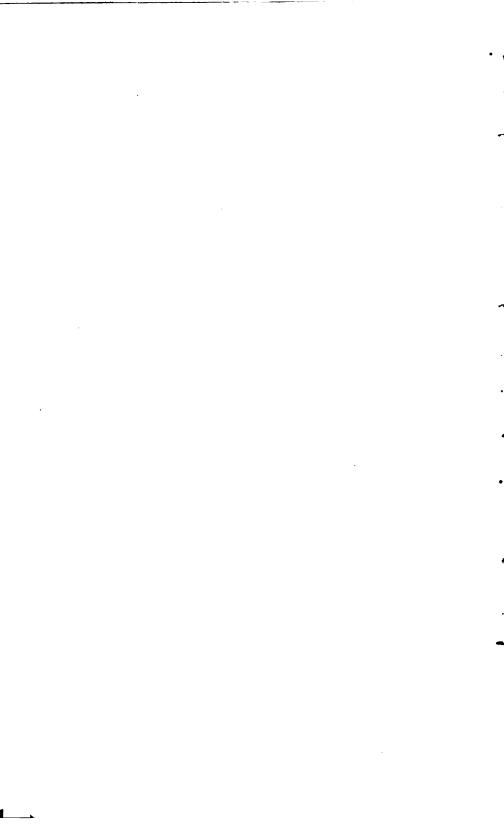
"Your very obedient servant,

Tenndung

"E. Thomason, Esq., Birmingham."



The Austrian Medal of Merit.



"Berlin, 10th Feb., 1830.

1380.

It is by order of his Majesty the King that I have the honour to present you with the here adjoined ring.

"I am, Sir,

"Your most obedient servant,

Buston

"Mr. Thomason,

His Majesty the King of Prussia's Vice-Consul at Birmingham."

" Londres, 30th Mars., 1830.

"Monsieur le Consul,

J'ai l'honneur de vous informer que sa Majesté, le Roi des deux Siciles, mon auguste souverain, a daigné vous decorer de la croix de Chevalier de son Ordre Royal de François I., en temoignage de sa reconnaissance pour le don que vous avez offert a S. M. de la parfaite collection de medailles gravés par vous en acier.

"J'eprouve, Monsieur, la plus grande satisfaction de rous annoncer cette distinction que le Roi, mon maitre, vous a accordé et que preuve si bien combien S. M. sait apprecier les talents et les merites que vous possedez.

"Des que je recevrai, Monsieur, la susdite decoration que me sera expedié incessament de Naples je m'empresserai de vous la transmettre, ainsi que le Brevet qui doit l'accompagner.

"J'ai l'honneur d'etre, avec une parfaite estime, "Monsieur,

"Votre tres obligé serviteur,

lount 1. Ludolf

"Mr. Thomason, &c. &c. &c., Birmingham."

1830. "Sua Maestà il Re del Regno delle due Sicilie, mio Signore, volendo dare a Loi un contrassegno del conto, in cui tiene le pregevoli qualità, dello quali è adorna la di loi persona, si è degnata conferirle la croco di caverliere del Real Ordine di Francesco Primo.

Nel Real nome, e con mio piacere ne la prevengo per sua intelligenza, e revolamento; rimettendole les corrispondente decorazione. Napoli, 16 Marzo, 1830.

Il Marchese Rufo

"Sig. D. Edoardo Thomason, Console sua Maestà il Re di Prussia in Birmingham."

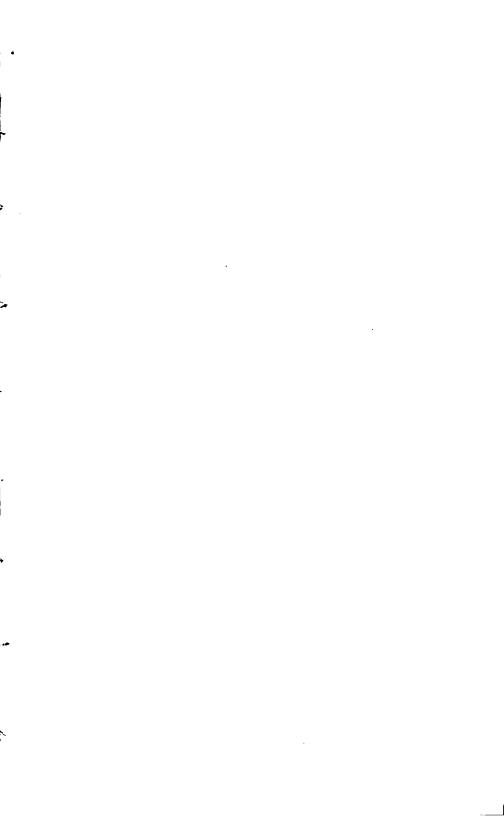
"London, 2, Adelphi Terrace, 9th April, 1830. "Sir,

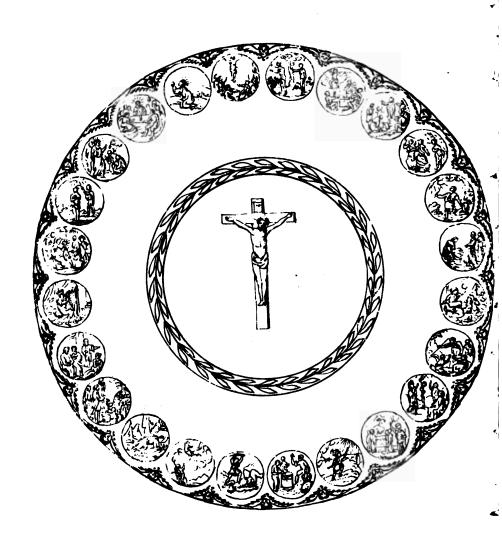
"I beg leave to express to you my great satisfaction derived from the inspection of your extensive and magnificent manufactory, at Birmingham, on the 25th ultimo; also my sense of the kindness and civility of the workmen, and of every individual connected with your establishment.

"I was particularly struck with your design for the Shield of Achilles, and could not refrain remarking to the artist employed at it my surprise that we have no modern works of art illustrative of sacred history.

"What could be more sublime and interesting than a representation of the stupendous events of man's redemption, from the Nativity of our blessed Lord to the consummation of His Atonement, in His Resurrection and final triumph over the enemy of our race!

"Such a work of art might be aptly designated the





THE SHIELD OF FAITH

Shield of Faith, in allusion to St. Paul's description of 1830. the Christian armour (Epistle to Ephesians), and a happy combination of the ten or twelve most remarkable incidents of the Holy Gospels, would present to the beholder, in my view at least, a more interesting exhibition than anything else of the kind in the world, because the recollections of sacred history will endure through interminable ages, infinitely surpassing the sublimest effusions of mere human intellect.

"The man who by his talents and industry illustrates Divine truth, with the view of impressing its unspeakable importance more forcibly upon the heart, accomplishes, in my humble opinion, a work of greater advantage and more enduring usefulness than it is possible to conceive. The holy scriptures alone contain the word of truth. They are everywhere filled with instruction and persuasion; instead of being a cold compilation of philosophical dogmas, they are filled with real life, with facts, with persons, with forcible appeals to the imagination, and with powerful applications to the heart. Those persons who read and understand the instructions of the ancient philosophers were never reformed by their doctrines. Those who read and understand the moral system of infidel philosophers are never amended by them, but corrupted, of course. The scriptures, on the contrary, have been the means of renewing and reforming millions of the human race. But this sacred book was never of the least use to any man by whom it was not in some good measure understood. Whatever tends. therefore, to illustrate, and make plain to the understand. ing, those solemn events recorded for our instruction is worthy the attention and consideration of every good man.

" I challenge all the most romantic admirers of the

1830. classics to produce one single passage equal in moral grandeur to that of Isaiah, with reference to the Redeemer seen in vision by the prophet, 'How beautiful on the mountains are the feet of him that bringeth good tidings,' &c. With his own voice he proclaimed in the tidings of that text the very things which He has done and suffered, and the infinite blessings which in this manner He has purchased for mankind. There is now (he cries) 'Glory to God in the highest, while there is peace on earth, and goodwill towards men.' In this ruined world, so long enveloped in darkness, so long deformed by sin, so long wasted by misery-where guilt, and sorrow, and suffering have spread distress without control, and mourning without hope-where war and oppression have ravaged without, and remorse and despair consumed within-where Satan has 'exalted his throne above the stars of God,' while its sottish millions have bent before him in religious worship; in this ruined world, where, since the apostacy, real good was never found, and where tidings of such good were never proclaimed, even here I announce the tidings of expiated sin, a pardoning God, a renewing Spirit, an opening heaven, and a dawning immortality. Here peace shall lift anew her olive branch over mankind; here salvation from sin and woe shall anew be found; and here God shall dwell and reign, the God of Zion. 'Come unto me, all ye that labour and are heavy laden, and I will give you rest.'

"I beg pardon for this long intrusion upon your time, and have the honour to be, Sir,

"Your very obedient and humble servant,

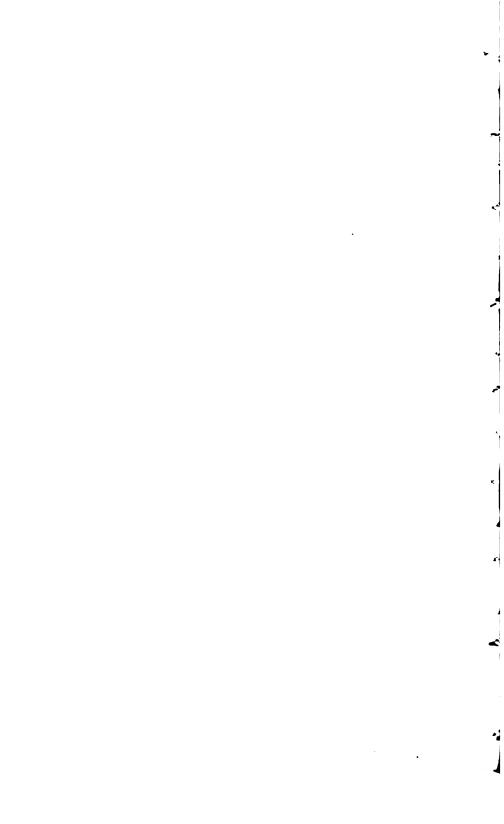
John Macaushand

"Sir Edward Thomason, &c."

R.N.



The Order of Francis 1st of Naples & Sicily.



"London, 21st August, 1830.

1830.

"Sir,

"I had the honour some weeks ago to write to you, and to inform you that my august master, the King of the Two Sicilies, has bestowed on you the Cross of Knight of his Royal Order of Francis I. As I have not received any answer to that note, I renew to you the information of this gracious decision of his Majesty, as a token of his great satisfaction in receiving from you the collection of your medals. I expect very soon from Naples that decoration, and the patent, which I will do myself the pleasure to forward to you; so if it arrives not before my departure for Paris, where I go to pay my homage to my Sovereign, I will leave directions to my friend and colleague, Baron Bulow, to send it to you.

"I remain truly, Sir,

"Your obedient servant,

lount 1. Ludolf

"Mr. E. Thomason, Birmingham."

"London, April 26, 1830.

"Sir,

"I have the honour to enclose a letter the Home Department at Berlin wishes to be transmitted to you.

"You will have the goodness to inform me in which way a small box, with a diamond ring, accompanying

1830. that letter may be best forwarded to you, or delivered here to some person authorised to receive it.

"I have the honour to be,
"Sir,

"Your obedient,

"E. Thomason, Esq., Prussian Vice Consul, Birmingham."

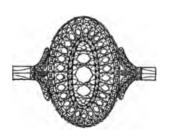
I was known at almost every Court in Europe, not only as being the consul for Birmingham for most of the foreign Governments, but as having, for nearly twenty years, received at my house, with every courtesy and attention, many ambassadors and ministers belonging to and travelling from such Courts to inspect our establishments. I succeeded in every application, but I was at a loss to obtain a reply from Rome, as this country had no Chargé d'affaires with his Holiness the Pope. I, however, wrote to Count Munster, and received the following reply:—

"London, 18th May, 1830.

"Sir,

"I regret having delayed answering the letter which you addressed to me concerning a present you intend to make to the Pope.

"I might without difficulty forward a letter to the



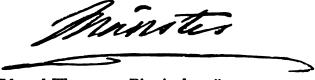
A Splendid Diamond Brilliant Ring, Presented to the Author by William III. King of Prufsia.



King's Hanoverian *Chargé d'affaires*, but I have no 1830. means of sending parcels, nor can any present be offered to any sovereign without previous permission.

"I have the honour to be, Sir,

"Your obedient servant,



"Mr. Edward Thomason, Birmingham."

As I knew something of Cardinal Weld, I got the series, with my petition, delivered by him to Pope Gregory XVI.

"London, May the 19th, 1830.

"Sir,

"I feel great pleasure in sending you the order which his Sicilian Majesty has been pleased to grant you, and which his Minister at London has requested me to forward to you.

"You will have the goodness to sign, and return to me a paper accompanying the enclosed letter, and expressing the promise that your heirs will return this order to the Neapolitan Legation at London.

"I have the honour to be,

"Sir,

"Your obedient humble

1830. "This letter was waiting for a Prussian officer who intended going to Birmingham, and wished to be the bearer; but his departure being delayed, I hasten to beg you, in answer to your letter of the 31st, to send to me the person named, in order that the parcel may be delivered to him.

"Edward Thomason, Esq."

"Pwlly wrach, Cowbridge,
Glamorganshire,
13th June, 1830.

"Sir,

"I have had the pleasure of receiving both your letters communicating your intentions with regard to the subject on which I had the honour of writing to you in London, on the 9th of last April.

"I shall always be happy to hear from you concerning the progress of a work which has for its object, in a peculiar manner, the promoting of the glory of God. Whatever happily illustrates Divine truth necessarily has a tendency to do so, because good is really contrived, and brought into existence by carrying that contrivance into execution.

"To consecrate our faculties to the glory of God and the good of the intelligent creation is unquestionably the sum of man's duty; and I presume that our time and talents cannot be better employed, with those ends in view, than by a practical conformity to the will of God, in doing honour to the 'Author and Finisher of our Faith,' who emphatically styles himself 'The Truth.'

"In the Holy Scriptures we find the greatest manifes-

tations of the Divine wisdom. The redemption of mankind and the Word of God are the prime exhibitions of this attribute. The Word of God is called by itself, 'The Word of Wisdom;' the Gospel is justly declared to be the wisdom of God. By the same illustrious title is Christ known in the Scriptures, and to disclose the manifold wisdom of God in the most wonderful work of redemption is expressly asserted to be the end for which all things were created.

"The wisdom of God is also gloriously seen in constituting one great class of his creatures, moral agents. forming such agents, he has made beings capable, with intelligence and choice, of coinciding and co-operating with him in his own infinitely desirable and excellent With a distant, but real resemblance to himpurposes. self, we can know, design, and act, and this to great and good ends; we are capable of understanding, in some good degree, his character, dispensation, and government; and the glory and excellence discerned in them These also, and Him, as the Author of them, we are capable of regarding with wonder and delight. we are capable of worshipping and obeying. another, at the same time, we are able to extend every useful thought, every amiable affection, and every beneficent action; and can thus become the means of mutual improvement, worth, and happiness.

"As formed by God, we are capable of being the subjects of real, though finite benevolence, and of directing this disposition, by our understanding, to an unceasing variety of desirable and useful purposes. In forming such agents, therefore, God has made for himself a kingdom supremely glorious and divine; composed of

1830. subjects whom his eye regards with infinite complacency; to whom his hand is stretched out with eternal bounty; and to each of whom on this earth his word is addressed with a peculiar degree of favour, 'For I the Lord thy God will hold thy right hand, saying unto thee, Fear not, I will help thee.' As the ocean reflects the splendour of the sun, so does this great kingdom reflect the boundless beauty and glory of the Creator, whose voice, with awful but delightful accents, pronounces this to be a work worthy of Jehovah. Such is the kingdom of God which we are commanded by Christ himself to seek first, and all other things needful shall be added unto us. pre-eminently important pursuit, the eye should be fixed stedfastly upon Him, who is alone 'the Way, and the Truth, and the Life.' The ear should be attentive to the voice of inspiration, 'Let not the wise man glory in his wisdom—the mighty man in his might.' 'Let not the rich man glory in his riches; but let him that glorieth, glory in this, that he understandeth, and knoweth me, that I am the Lord which exercise loving kindness, judgment, and righteousness in the earth, for in these things I delight, saith the Lord.'

"And, in my view, the mind of every real Christian should be determined by constant and vigorous efforts of the understanding and will to say and do with the Apostle, 'I count all things but loss for the excellency of the knowledge of Christ, &c. I press toward the mark for the prize of the high calling of God in Christ Jesus.'

"'Whether, therefore, ye eat or drink, or whatsoever ye do, do all to the glory of God.'

"Such being my motive in taking the liberty of addressing a letter to you in the first instance, I trust you will



A superb Gold Snuff Box, set with Diamonds,

Presented to the Author by

Charles VIV King of Sunday.

ascribe this to the same; and believe me to be, Sir, most 1830. faithfully,

"Your obedient humble servant,

John Macaushund

"Commander in the Royal Navy.

"I am travelling about, expect to be at Plymouth shortly, and from there to town, No. 2, Adelphi Terrace.

"To Edward Thomason, Esq.,

Birmingham."

"19, Montague Street, Portman Square, June 30th, 1830.

"Sir,

"I avail myself of the first opportunity in having the honour to acquaint you, that I have received, from Stockholm, a golden snuff-box with H. M. the King of Sweden and Norway's 'chiffre,' in diamonds, with directions to deliver it to you, as a proof of his Majesty's regard. Previously informed of the gracious intention of the King, my royal master, to confer on you this gift, I have been expecting it for some time, but want of opportunity has hitherto prevented its reaching me. Not trusting, however, to the conveyance per coach, I have to request you to favour me with the address of your agent in London, in whose hands I will deliver it up, in order to be forwarded to you, when I beg of you

1830. to send me a few lines in intimation of your having duly received it.

"I have the honour to be, "Sir,

"Your obedient humble servant,

Hot Edains

"Swedish Chargé d'Affairs.

"E. Thomason, Esq., Birmingham."

"Bushy, 10th July, 1830.

"Sir,

"I received your kind present this morning of the two medals, struck at so appropriate a juncture; but thinking you would wish them to be laid before their Majesties, I took upon myself the responsibility of presenting them to the Queen, in your name. Her Majesty has, in consequence, commanded me to inform you, how much gratified she has been at your attention, and to say how much her Majesty is pleased with their execution, and to express her having graciously accepted them.

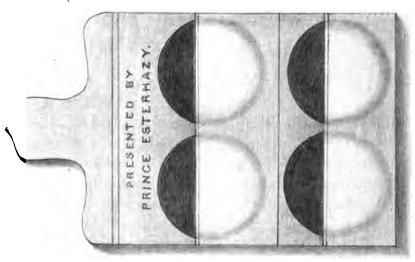
"I remain,

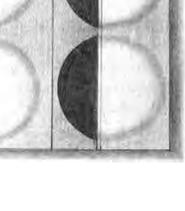
"Your obliged servant,

"Edward Thomason, Esq."













EXTRAORDINARY BERLIN IRON CASTINGS.

## "Dear Sir,

"I avail myself of your permission to introduce to you Mr. Jordan and Mr. Warlish, from the Hartz mines, and I am commanded by the Duke of Sussex to say he shall feel obliged by any attentions you can pay them, and any letters of introduction you can give them to the places they intend to visit.

"I have the honour to be,

"Yours very respectfully,

Mittynow

"E. Thomason, Esq., Birmingham."

I entered my work at Stationers' Hall; the following is what is given you for your protection:—

"July 29, 1830.—Then entered for his copy, the property of Edward Thomason. Copy of a series of medals, illustrative of the Holy Scriptures. Published by Edward Thomason, of Birmingham, and struck off at his manufactory; size of the medals three inches in diameter.

"Received eleven copies.

Jes Greenhill-

hes Greenhild

"The above written is a true copy of an entry in the register book of the Company of Stationers kept at the Hall of the said Company.

"Witness my hand, this 2d day of August, 1830.

"Warehouse-keeper of the Company of Stationers."

"Bogota, Abl. 7, de 1830.

"Mi estimado Sēnor.

"El Senor Corona Wilson ha tenido la bondad de presentarme una medalla de mi busto que la noble generosidad de v. se sirvio consagrar á mi memoria. Tanta benevolencia y estimacion gratruita de parte del mas celebre de los artistas Britanicas debe infundirme y me infunde los sentimientos mas cordiales de un reconocimiento que debiera ser tan duradero como las obras inmortales del que ahora es el objeto de la admiración de los hombres de gusto.

"Me apresuraré á aprovechar esta oportunidao de ofrecer a v. los sentimientos de mi mas distinguida consideracion.



TRANSLATION.

"Colonel Wilson has had the goodness to present me with a medal of my bust, which your noble generosity has consecrated to my memory. So much goodness and disinterested esteem from one of the most celebrated artists of Great Britain ought, and actually does, impress upon my mind, the most cordial feeling of acknowledgment, which ought to be as everlasting as the works of the man now the admiration of the scientific world. I

avail myself of this opportunity of expressing the sentiments of my most distinguished consideration."

"No. 32, St. James's Street,
"Half-past Six, 31st July, 1830.

"Dear Sir.

"I regret not finding you in town. I was duly sensible of your obliging attention by your early call, and have taken the first moment of freedom from engagements to call at the address on your card.

"I wished to confer with you towards the execution of propositions made in the anti-piratical society of Knights Liberators for the commemoration of the final execution of the object which they have fostered with unremitting zeal up to this consummation of their labours, effectuated by one of its most zealous members and collaborators, the Count de Bourmont, who has been a constant correspondent with the president, and took the secretary of the society with him as an interpreter, whom he sent singly and unprotected by any but a Janissary (servant of the Dey) to signify his ultimatum, and arrange the terms and time of surrender. In the first sitting after Lord Exmouth's victory, Count de Bourmont either moved or seconded, at any rate voted, a commemorative medal with the effigy of Lord Exmouth, and an appropriate inscription, which was executed in the Royal Mint at Paris; one was voted also to me as the president and instigator, but that I left in suspense, employing the funds more suitably to the attainment of the objects in perspective. The time is come to return the compliment to the two French Commanders-in-Chief, and their brave supporters in the cause of humanity, order, peace, and free navigation. Some of the metal of the guns taken will be employed for 1830. medals similar to those of Lord Exmouth. I wish to ask you, supposing the metal to be furnished, at what rate could you furnish, per hundred, some impressions of my effigy from the die in your possession, of your execution, which I find it is the wish of the Society to place in the I beg the favour of you to send to my agent, Mr. Hinxman, No. 72, Great Russel Street, two dozen of those you favoured me with formerly, in white metal. am sorry not to have met you. I beg you will command me towards the success of your laudable commercial undertakings. Mount Atlas and the whole of N.W. Africa, hitherto barred by piracy and barbarism, are now open to your enterprise. If you chose to become a purchaser of some of the gun metal from the captors, I can furnish you Arabic moral sentences, and extracts from the Koran, and sayings of Mahomet appropriate.

"Your very obedient servant,

pr. morey Smith

"Mr. Thomason."

From the sudden and extraordinary revolution of the three days in July, nothing would satisfy the Chamber of Deputies and the people but arming the French country. Muskets then were called for in every direction, and a Mr. Del Clarke was deputed by the French Minister (I believe Mons. Perrier) to consult with me if the Birmingham gunmakers would undertake to manufacture, in a given time, 100,000 stand of arms, exactly to match, and in every particular as good as the French pattern which he brought with him. Thinking that such an order would essentially serve my esteemed friends, Messrs. Hadley and Sons, the great gun contractors, I ordered out my carriage, and took this

gentleman up to Messrs. Hadleys. They undertook to 1830. execute the order in the given time, but it was essential to have the contract signed by the Minister at Paris, who should approve of both price and quality, and to engage for payment on delivery. Nothing could bring this to a proper termination, but that Mr. Del Clarke and Mr. Hadley should start by that day's mail for Paris; but it was essential, at least very desirable, that they should have an audience in London with Prince Talleyrand, and which difficulty might detain them some days. I gave them the following letter, which procured them an immediate interview:—

"August 7, 1830.

"To His Excellency the Prince Talleyrand, Ambassador from France to Great Britain.

"Your Excellency

"Having had the honour for many years to fill the appointment of French Vice-Consul for this town and neighbourhood, I take the liberty to address your Excellency upon a circumstance which I conceive may possibly be of some importance to the French Government.

"Two parties from Paris have been here, calling themselves the agents of the Government of France, and officially sent by that Government to purchase guns or muskets for the Government.

"Seeing one party having with them some documents which appear official, I have given them my best advice how to act in procuring these arms without leading to an imposition in the price. The gentlemen of this party, which appear to me to have directions from the French Government, are a Mr. George Del Clarke, and Mr.

1880. Augustus William Johnson, who are returning to Paris to make a report to the French Government, and have with them, on purpose, our principal gun-maker, a Mr. Thomas Hadley.

"If your Excellency could be pleased to condescend to grant them an interview for a few minutes, they could give your Excellency much valuable information.

"My own manufacturers are not in this line, and I only do this, as in duty bound, to give your Excellency all information in my power. Offering your Excellency my best attention here on all occasions,

"I have the honour to be,
"Your humble servant,
"E. THOMASON."

As regards the inconvenience and serious consequences of not attending to the letter of a contract, I will here mention the breaking off of this engagement with the French Government, thereby throwing the whole hitherto expense upon Messrs. Hadley. The furniture belonging to the French pattern, such as the steel part at the buttend, and the steel tubes for the ramrod, &c., the French make out of pure rolled steel; and so did the English, until lately that a patent was taken out for an ingenious invention to make all these ornaments of a gun in cast steel hardened. It is desirable to possess all the hardness of steel together with the toughness of iron, and this patent mode of case-hardening of cast steel had both these properties; and no difference in appearance, in making these ornaments by the new way, which could be discerned without some previous hint or extraordinary penetration. On the first three thousand guns reaching Paris, some cunning inspector observed this, when the



A BEAUTIFUL MOSAIC, PRESENTED TO THE AUTHOR BY THE PREMIER COUNTESS OF ENGLAND. THE AUTHOR HAD THE OPPORTUNITY TO SHOW IT TO HER ROYAL HIGHNESS THE DUCHESS DE BERRI, WHO PRONOUNCED IT TO BE THE MOST EXCELLENT OF THE KIND WHICH SHE EVER BEHELD.

French Government took the advantage in throwing the 1830. 3000 guns upon Messrs. Hadley's hands, and annulling the contract, to Messrs. Hadley's great loss, for if they had completed the 100,000, their profit would have been from £8,000 to £9,000.

" August 10, 1830.

"Sir.

"Notwithstanding I had the pleasure of thanking you in person previous to the arrival of your splendid present to Lady Shrewsbury, yet its beauty and perfections are so great that I cannot refrain from the high gratification of again acknowledging our warmest thanks for so exquisite a performance, as well as our sincere congratulations on the completion of so laudable, difficult, and interesting an undertaking. Lady Shrewsbury begs me to say how truly she joins in these sentiments, and

"I have the honour to remain, Sir,

"Your most obedient and obliged servant,

"Mr. Edward Thomason, Birmingham."

"Highgate, Sunday evening, Aug. 15th, 1830. " My dear Sir,

"Adverting to what we were speaking of when you shewed me your scripture medallions, I have referred to Cole and Drake's History of York Cathedral, and send you the following extract:—' What may justly be called the wonder of the world, both for masonry and

1830. glazing, is the noble east window. The upper part is a piece of admirable tracery, below which are 117 partitions representing so much of Holy Writ that it almost takes in the whole history of the Bible.' The agreement for this great work is more correctly stated in the the Appendix to Britton's History of the same edifice, viz. 'By an indenture, dated the 10th day of August, 1405, John Thornton, of Coventry, glazier, contracted with the Dean and Chapter for glazing and painting the great eastern window; the painting to be executed with his own hands, and the work to be finished in three years; for which he was to receive four shillings per week, and one hundred shillings at the end of each of the three years; and if he performed to the satisfaction of his employers, he was to receive the further sum of ten pounds, in silver.'

"THO  ${RNT \atop MAS}$  ON in  ${1405 \atop 1830}$  have both deserved well of their country.

"I am, my dear Sir,

"Yours very faithfully,

" Edward Thomason, Esq."

"Royal Asiatic Society's House, Grafton Street, London, August 19th, 1830.

"Dear Sir,

"Being desirous of obtaining some information about orders of merit, I should be extremely obliged by your favouring me with a copy of the statutes of the 1830. Order of which you were lately nominated a Knight, if you have received them, and of any others that may be in your possession.

"Hoping that you will excuse my troubling you with this request,

" I remain, dear Sir,

"With every respect,

"Your very obliged and obedient servant,

Musselmann

"E. Thomason, Esq."

Charles the Tenth, now under the name of Comte de Ponthieu, the Duke and Duchess d'Angoulême, and the Duchess de Berri, now resided at Lulworth Castle, Dorsetshire. Being desirous to prove my loyalty and gratitude to the late King, I sent the five splendid volumes of the series of the Bible Medals, in hopes that the Comte would condescend to honour me by accepting them. The case containing them, with a respectful memorial, I sent to the care and management of my esteemed friend, John Henning, Esq., of Weymouth, whose kind letter to me is dated

"Weymouth, 13th Sept., 1830.

"Dear Sir,

"I beg to acknowledge the receipt of your favour of the 10th instant, and to assure you that it will afford me great pleasure to be the bearer of your present for his Majesty Charles the Tenth. I will deliver it safely into the hands of the Duke d'Angoulême,

1830. as you desire. Lulworth is a pleasant ride from this place, the distance being only twelve miles, and I shall feel gratified in the opportunity of being useful to you. Mrs. Henning and my daughter request to convey, with their compliments, their best thanks to Mrs. Thomason and yourself, for the polite attention they received from you and her at Birmingham.

"I remain, Sir,
"Your most obedient servant,

Som Aming

"E. Thomason, Esq."

Charles the Tenth, however, could not make up his mind to accept the present. See the following letter:—

"Lulworth Castle, Wareham, Dorsetshire, 27th September, 1830.

" Monsieur.

"J'ai été très faché, a mon retour, d'apprendre que Monsieur le Comte de Ponthieu (Charles X.) n'a pas accepté le magnifique hommage que vous lui avez offert. Madame la Marquise de Mosny (Duchesse de Berry), en a fait des reproches à son beau pere, en lui parlant de la maniere aimable dont vous lui avez fait les honneurs de chez vous et de votre ville. Le roi lui a dit vous avoir fait faire les remerciments, et me charge de vous les renouveler, en vous assurant que s'il a refusé un objet aussi intéressant et aussi précieux, ce n'est qu'en raison de sa position qui l'oblige a voyager, mais que s'il se trouve établi d'une maniere plus stable, il sera tres

heureux de posséder une aussi bel ouvrage. Je profite de cette occasion Monsieur, pour vous parler de la reconnoissance de Madame la Duchesse de Berry, qui dans le cours de son voyage a souvent fait mention de votre bel etablissement et de votre politesse.

"Agreez, Monsieur, l'assurance de ma haute consideration. Voudrez vous bien offrir mes hommages à Madame Thomason?

"Votre tres humble serviteur,



"Mons. Thomason, French Vice-Consul, &c. Birmingham."

Although Charles X. had abdicated the throne now upwards of four months, yet the French Mint, faithful to their late monarch's commands to present me with the medals of France, to my surprise, honorably fulfilled the promise and the case arrived in the Thames, consigned to the care of the first Clerk of the Customs, Mr. B. Donne, who apprised me thereof; and as I had now strong fears that the inspectors at the Custom House might lose some of the medals, and thereby render the series of 1037 historically imperfect, I wrote to the Duke of Wellington mentioning my fears, when he was so kind as to influence Mr. Dawson, of the Treasury, to see to it, which the Duke informed me by the return of the post; and soon after I received the following letter from W. R. Dawson, Esq., M.P.:—

"Treasury Chambers, 18th Nov. 1830.

"Sir,

"I am commanded by the Lords Commissioners of his Majesty's Treasury to acquaint you, in answer to your petition, that directions have been given to the Commissioners of Customs to take the greatest possible care in the examination of the case of French medals therein referred to, but my Lords cannot direct the admission of the same without examination.

"I am, Sir,

"Your obedient servant,

Non.na

"Mr. E. Thomason, Birmingham."

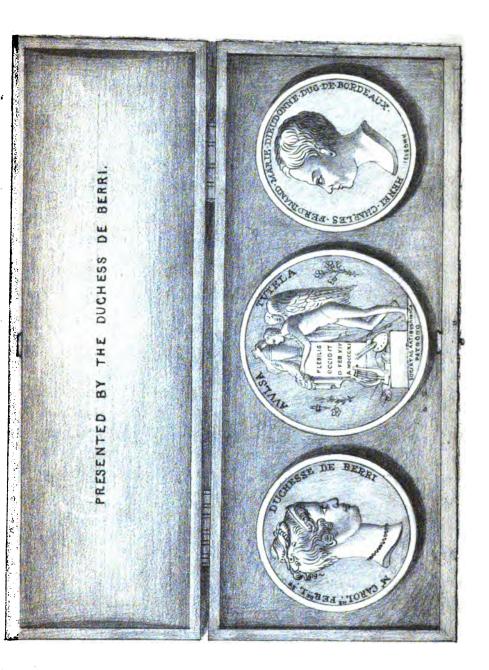
"Customs, London, 30th November, 1830. "Dear Sir,

"I have indeed only time to-day to inform you that I sent off your case on Thursday last, and I hope before this you have it safe. I can assure you that the greatest care was taken of it; and, fearing that the outer case was not sufficiently strong, you will perceive that I have put it in a new one for security. I will soon send you the account of disbursement.

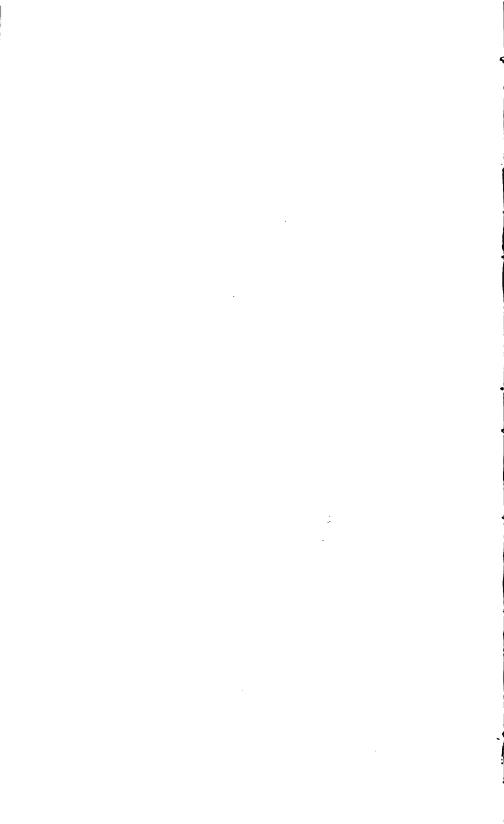
"Yours, truly,

"Edward Thomason, Esq., Birmingham."

Charged only 6d. for form sake.



į



"Sir,

"Count Nesselrode has made known to the Emperor your intention of presenting to him a series of medals, representing scenes from the scriptures, and by the enclosed note you will see that H. I. M. is pleased to accept the present.

"I cannot learn anything of the vessel in which you inform me the medals have been sent.

"I have the honour to be,

"Sir,

"Your most obedient humble servant,

Heyterhors

essolver S

"Edward Thomason, Esq."

"St. Petersbourg, le 4 Novembre, 1830.

" Mylord,

"En réponse à votre aimable lettre du 31 Octobre, je me fais un véritable plaisir de vous annoncer que l'Empereur a daigné agréer la collection de médailles que M. Thomason, de Birmingham, vient de lui offrir. Sa Majesté ne peut assurément qu' accueillir avec faveur, un envoi placé sous les auspices de votre Excellence.

"Veuillez, Mylord, agréer l'hommage de tous mes sentiments.

"A. E. S. Mylord Heytesbury, &c."

1830. The Countess of Shrewsbury, the premier Countess of England, had lately returned from Rome, when she was so kind and obliging as to present me with a large specimen of mosaic, from one of her ladyship's designs, in flowers, butterflies, &c., done by the celebrated Roman, Proglio. It is most exquisitely finished, and it has been already the admiration of many hundreds of connoisseurs. I showed it to her Royal Highness the Duchess de Berri, who declared that, until she had seen this, she thought she was in possession of the finest specimen extant.

"Munich, November 23, 1830.

"Sir,

"In answer to your letter to Lord Erskine, received about a month ago, and dated the 30th of April, I am directed by his Lordship to acquaint you that the King of Bavaria has been graciously pleased to express his intention of accepting the set of medals which you have destined for his Majesty, as you will perceive from the annexed copy of an answer from Count Armansperg (the Bavarian Secretary of State for Foreign Affairs) to a communication made to his Excellency by Lord Erskine upon the subject.

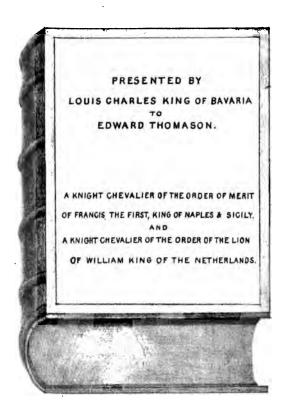
"I am further directed by Lord Erskine to inform you that his Lordship has sent directions to Mr. Van Es, at Rotterdam, to forward the medals to Munich, and that his Lordship will take measures that they should reach his Bavarian Majesty's hands.

"I have the honour to be, Sir,

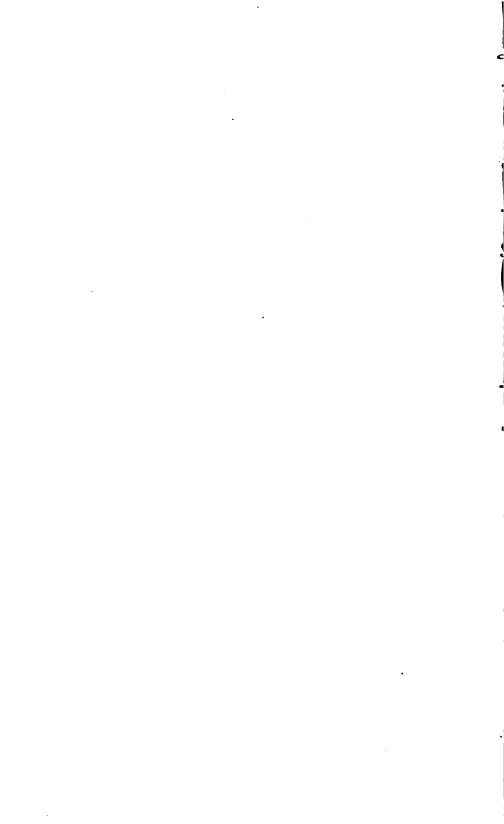
"Your most obedient humble servant,

Henry Howard

"Attached to H. M. Legation."



A CASE CONTAINING 120 BRONZED MEDALS
OF GREAT AND LEARNED MEN.



(Copy.)

1830.

"Le Ministre d'Etat, Comte d'Armansperg, a l'honneur de prevenir Sa Seigneurie Lord Erskine, Envoyé Extraordinaire et Ministre Plenipotentiaire de S. M. Britannique que Sa Majesté le Roi a agrée la demande que lui a exprimée M. Edouard Thomason, de Birmingham, et recevra donc, avec plaisir, la collection de medailles dont, il veut lui faire hommage.

"Le Comte d'Armansperg, en priant Sa Seigneurie de vouloir bien en informer Mons. Thomason, a l'honneur de lui résterér les assurances de sa haute considération.

"Munich, le 23 Novembre, 1830."

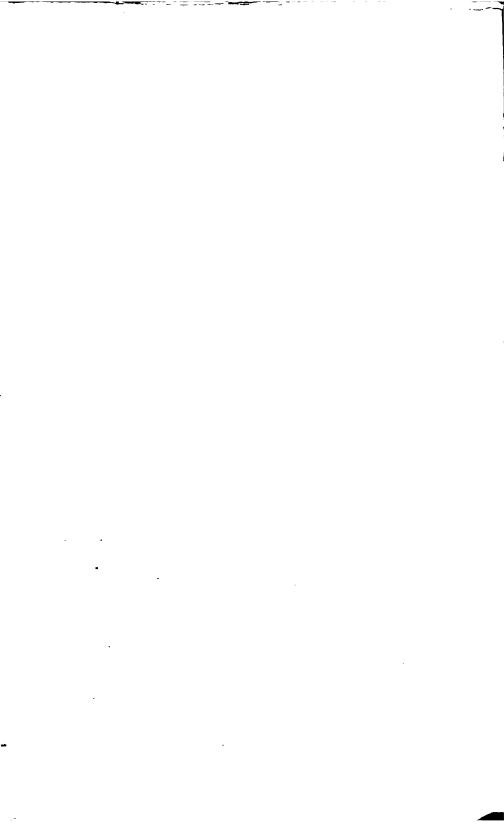
## REMARKS UPON THE BIBLE,

COMMECTED WITH

## THE SERIES OF MEDALS.

1830. My artists in die engraving had, during the two years of 1827 and 1828, been employed in sinking or engraving thirty-two large size medal dies, each three inches in diameter, containing a condensed history of most of the sciences, as already noticed; during which period I observed that they had perfected the difficult art of sinking words, sentences, and letters and figures—an art never before properly attained, and attended with success solely by the positive necessity of the thirty-two dies being covered with lengthened tables and calculations, essential to the explanation of the work; for it is well known that medals rarely contain more letters and numerical figures than what are put in the legend and the exergue.

The study of these sciences, or philosophical truths, led my mind to deductions both moral and religious, and awakened in me those devotional feelings which combine pious sentiments with enlightened views. Science affords the means to interpret and unfold the works of Nature, to illustrate the wisdom and glory of the Creator, and to inspire us with the most exalted sentiments. The diffusion of general science attaches the mind to thoughts divine, and to the principles which lead to





THE MOLTEN SEA OF SOLOMON, WITH A COPY OF AARON'S ROD MADE SUBSERVIENT FOR THE INKSTAND, DURING THE PERIOD OF WRITING THE HISTORY OF THE BIBLE.

salvation, which is ultimately drawn from the Bible 1830. itself, because the most important intention of the Bible is—to make men "wise unto salvation."

Miles Coverdale, in the year 1535, first printed a complete translation of the Holy Scriptures in the English language, and dedicated his work to Henry the Eighth. This was a happy present to Great Britain, for it strengthened people in their faith on the blessed promises of the Gospel: it inspired them with zeal in the fulfilment of their relative duties, with integrity in their dealings, and with a spirit of kindness to all mankind.

It appeared to me, in 1827, that I might, through God's assistance, become a humble instrument to effect a unique and novel medallic work to further and promote the glory of God, by impressing the Word of God upon gold, silver, and other indestructible metals, with emblematical and symbolical designs, and with a short condensed explanation on the reverses of the medals, and thereby be the first author of a MEDALLIC BIBLE.

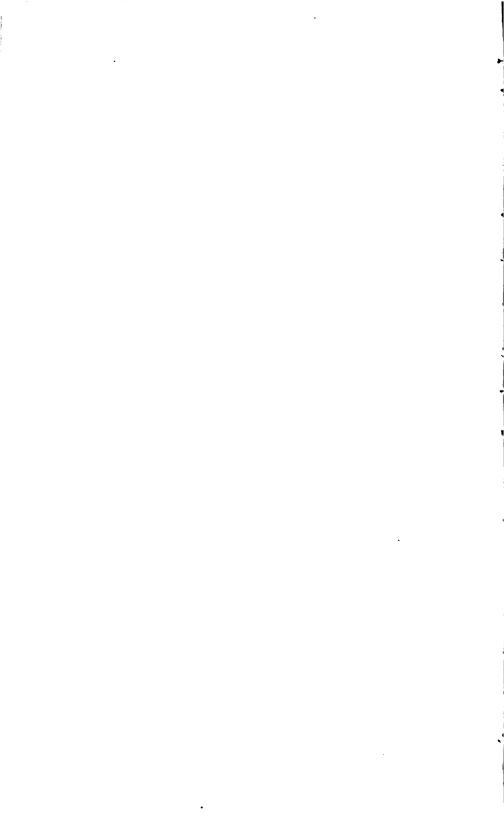
In this feeling my heart rejoiced: my soul was willing, but my flesh was weak, and I prayed unto the Lord to give me grace and strength of mind to accomplish so arduous an undertaking, in the following morning prayer.

"Almighty God, the giver of all good things, without whose help all labour is ineffectual, and without whose grace wisdom is folly, grant, I beseech Thee, that, in this undertaking, Thy Holy Spirit may not be withheld from me, but that I may promote Thy glory, and the salvation of myself and others. Grant this, O Lord, for the sake of Thy Son, Jesus Christ, our blessed Saviour and Redeemer. Amen."

I first applied myself in reading over the sacred volume of the Bible, the authority of which is received by inspiration from God, and universally admitted. found, after taking down copious notes, that I should be unable, by the most condensed arrangements, to produce a tolerably continuous, or even contracted, development under a less number than sixty of the largest size medals, each being three inches in diameter; the obverses of which to contain the historical devices, and the reverses filled with lettered explanation; and it was also essential for my purpose that the historical pieces should be obtained from the pictures of the Ancient Masters. I did not despair in accomplishing this apparent difficulty in obtaining copies for my artists to work from, because I held at this period the appointment of eight consulships from foreign governments, which gave me facility to procure copies of such pictures from the Continent which I might not conveniently find in England.

I experienced much difficulty to satisfy myself, to determine and bring my mind for the adoption of an allegorical subject to constitute the obverse side of the first medal of the series. Cosmogony, or knowledge of the original formation of the earth, and the materials of which it was composed, appeared to me to be beyond the reach of human sagacity. I searched into the opinions of Pythagoras, Plato, Aristotle, Newton, and Hutton, and I own it an assumption in me to state that I could not concur with the ideas of these learned men, that the earth was originally a chaos, and I do affirm and hereby declare that I cannot comprehend their logic on this important point.





Their notion that the earth was primarily a chaos 1830. appeared to me to have no foundation in reason, and quite at variance with the Mosaic account of the Creation; for it is surely inconsistent with the wisdom ascribed to the Deity, to think that he would create this visible system in confusion, and then to employ it to put itself in order.

The sacred historians simply tell us that God created the heavens, that the heavens gave no light, and that earth was covered with water.

He first commanded the light to shine; then the air to take up what quantity of water he thought proper, for ! the purposes of vegetation. Afterwards the dry land was made to appear, and the powers of vegetation given to it. Then the sun, moon, and stars were created as subordinate agents, to divide the light from the darkness; and then followed the formation of fishes and birds, and land animals, and then man.

Moses everywhere expresses himself as if the sun, the moon, and the other heavenly bodies were only made to minister to our wants. (Moses, however, did not write to instruct man in astronomy.)

This arrangement corresponds with the six days.

The first day, God created the light.

The second day, God created the firmament.

The third day, God created the sea, water, plants, and trees.

The fourth day, God created the sun, moon, and stars.

The fifth day, God created the fishes and the birds.

The sixth day, God created the land animals and man.

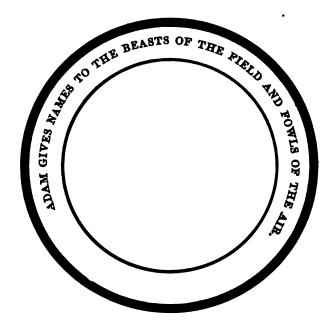
The seventh day, God rested from his labours.

"These are the generations of the heavens and of 1830. the earth when they were created, and every plant of the field before it was in the earth, and every herb of the field before it grew; for the Lord God had not caused it to rain upon the earth, and there was not a man to till the ground." "And God said, Let us make man after our own image, and let man have dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, and over every creeping thing that creepeth on the earth." "And the Lord God formed man out of the dust of the ground, and breathed into his nostrils the breath of life, and man became a living soul;" and the first exercise of Adam's power and intelligence was his giving names to the beasts of the field, and the fowls of the air,

I felt convinced that I should fail in any attempt to describe on a medal what philosophers are pleased to call the chaotic or original appearance of the earth: I omitted such an assumption, and I decided that the First Medal of the series should be the naming of the animals, and fowls of the air, by Adam.

which the Lord God brought before him for that

purpose.



First Medal.

Adam gives names to the beasts of the field and the fowls of the air.

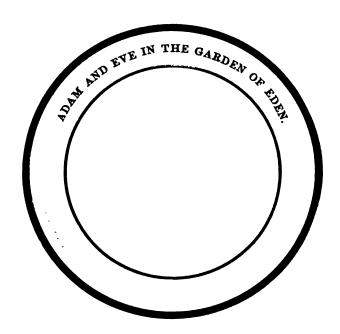
From the picture of Paul Veronese, of Verone.

And the Lord God planted a garden Eastward in Eden, and there he put the man whom he had formed. And the Lord God said, I will make him a helpmate meet for him, but the Lord God gave the following injunction: "Of the tree of knowledge of good and evil, thou shalt not eat, for in the day that thou eatest thereof thou shalt surely die." And God created woman out of the side of the man, and gave her to Adam for his wife, and brought them into Paradise. And God said, therefore shall a man leave his father and mother, and cleave unto his wife, and they shall be one flesh, for the purpose of instituting the holy state of matrimony.

Second Medal.

Adam and Eve in the Garden of Eden.

From the picture of Dominication, of Bologna.

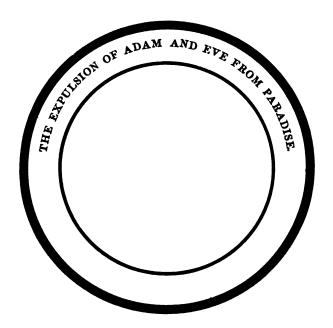


There are many conflicting opinions about the absolute site of Paradise, or Garden of Eden. It is generally believed and inferred from the sacred historian, that it was situate in Armenia, between the sources of the four rivers, Euphrates, Tigris, Pison, and Gihon, which places Eden in Armenia.

Now the serpent was more cunning and deceitful than any other beast of the field, and tempted Eve to gather the fruit from the Tree of Knowledge, although the woman told the serpent that she might eat the fruit of all the trees in the Garden, except that in the midst of the Garden, called the Tree of Knowledge, for God had said, ye shall not eat or touch it lest ye die. The serpent said unto the woman, ye shall not surely die, for in the day that thou shalt eat thereof, your eyes

shall be opened, and ye shall be as gods, knowing good from evil. And the woman, seeing that the fruit was good for food, and likely to make them wise, took of the fruit thereof, and did eat, and gave it to her husband, and he did eat of it. This act produced man's shameful fall; for God said, Because thou hast done this, cursed is the ground for thy sake. In the sweat of thy face thou shalt eat bread, until thou return unto the ground, for dust thou art, and unto dust shalt thou return. And God said, Behold the man is become one of us to know good from evil, and, lest he should put forth his hand, and take also the fruit of the Tree of Life, and eat and live for ever, I will therefore drive them out of the Garden of Eden, and place Cherubims with a flaming sword to protect the Tree of Life.

3999 в.с.

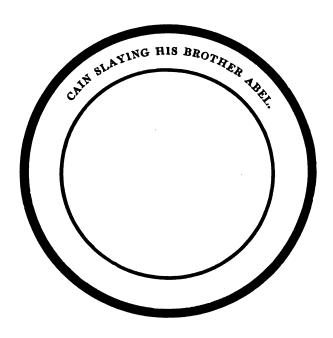


Third Medal.

The expulsion of Adam and Eve from Paradise.

Guido.

Eve conceived, and bare a son, first Cain, and then Abel; but Cain, in a fit of jealousy, slew his brother Abel. And God said, Now art thou cursed from the earth; and when thou tillest, the ground shall not yield unto thee her strength. And Cain went out from the presence of the Lord in the land of Nod. This Nod is supposed to be in the deserts of Arabia.



Fourth Medal.

Cain slaying his brother Abel.

Domenichino.

3871 B.C.

Cain's wife bore unto him sons and daughters, from whose descendants Jubal was born, who excelled on the harp and the organ, and was called the father of all such as could handle the harp and organ, and supposed to be the first inventor of instruments of music. And of the descendants of Cain was also Tubal Cain, who first taught the separating of metals from their ores, and an instructor of every artificer in brass and iron.

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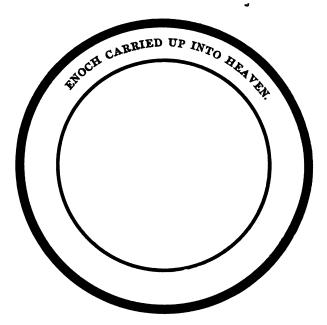
Adam's wife again bare a son; and she said, God has appointed me another seed instead of Abel, whom Cain had slain.

The scriptures here mention the genealogy, age,	
and death of the Patriarchs from Adam to Noah.	Before Christ
Cain born, son of Adam and Eve.	3999
Abel born, ditto	3998
Seth born, ditto	3870
Enos born, son of Seth	3765
Cainan born, son of Enos.	3675
Mahalaleel born son of Cainan.	3605
Jared born, son of Mahalaleel.	8540
Enoch born, son of Jared.	3378
Methuselah born, son of Enoch.	8313
Lamech born, son of Methuselah.	3126
Adam dies, aged 930 years.	8070
In this year Enoch was translated up into heaven.	8013
Seth dies, aged 958.	2958
Noah born, son of Lamech.	2944
Enos dies, aged 905 years.	2860
Cainan dies, aged 914 years.	2765
Mahalaleel dies, aged 895 years.	2710
Jared dies, aged 962 years.	2578
5	

Seth was the third son of Adam and Eve, and was the chief of the children of God who preserved the true religion and piety, which the descendants of Cain had abandoned; and it will be seen that the progeny of Seth is followed through nine generations, until the arrival of the time of Noah, the son of Lamech; but of the actions of these patriarchs or people of this long period little is said. It appears that the children of wicked Cain lived apart from those of Seth, but immediately that the

3018 B.C.

descendants of Seth saw the females of the tribe of Cain, they began to intermarry with them, when impiety and vice gained the ascendancy, and overspread the world. In consequence of this profaneness, God withdrew his presence from among them, and began to exhort them, through the medium of preachers of righteousness, to repent; of these preachers, Enoch was one, and God so highly approved of his actions, that he removed him from earth to heaven, without tasting of death, at the age of 365 years.



Fifth Medal.

Enoch carried up into Heaven.

Paul Veronese.

The Babylonians acknowledged Enoch as the inventor of astrology, and that he received all his uncommon knowledge by the ministry of an angel: he was also the Atlas of the Greeks.

And God said to Noah, The end of all flesh is

2460 B.C.

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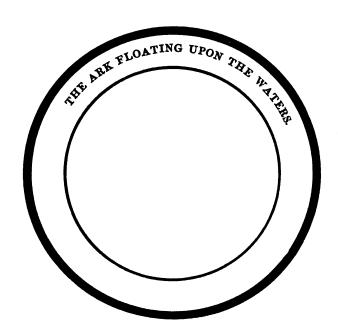
come before me, for the earth is filled with violence through them; and, behold, I will destroy them with the earth.

God informed Noah of the future intended deluge, and which was to take place in one hundred and twenty years time, and commissioned him to preach Noah was the great grandson of repentance. Enoch, and had three sons, Shem, Ham, and Japheth, whom God informs Noah shall be saved from the flood, with himself, his wife, and his sons' wives; and for the preservation of whom God instructed Noah to build or construct an ark. or large vessel, and said unto Noah, The ark thou shalt make of gopher wood, and thou shalt pitch it inside and outside, and the length of the ark shall be three hundred cubits, which, according to the Hebrew standard, is 525 feet; the breadth 50 cubits, or about 88 feet; the height 30 cubits, or 52 feet, calculating the cubit at 21 inches. patriarch Noah, in conformity to God's commands, began his task in the sight of all men, and although he assured the people that he made the ark by divine command, his words were only mocked, and treated with contempt. Noah was also instructed by the Lord God to bring into the ark two of every living thing of all flesh, both male and female, and fowls, and every creeping thing after its kind; and Noah did as God commanded, and Noah was just six hundred years old at this period.

Lamech, the father of Noah, and son of Methuselah, dies at this time, aged 777; and Methuselah also died in the year of the Deluge, at the age of 969, the greatest age ever attained by man.

2344 в.с.

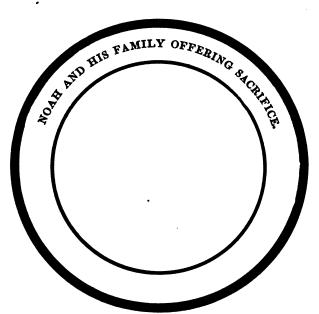
On the 10th day of November, 2344 years before Christ, God commanded Noah to prepare to enter the ark; and on the 17th day of November, the pious Noah entered the ark, with his wife, his three sons, and their three wives.



Sixth Medal.
The Ark floating upon the Waters.
Bandinelli, of Florence.

There was rain upon the earth for forty days, and the water continued upon the earth during one hundred and fifty days; and on the seventeenth day of the seventh month (April), the ark rested on the mountain of Ararat, in Armenia, in Asia; and it is supposed that the city of Nekgivan, nine miles from Ararat, is the most ancient city in the world, and that Noah settled here when he quitted the ark. Forty days after this, Noah sent out a raven, which went to and fro, and returned to the ark. Seven days after this, Noah sent out a dove, and it

returned to the ark with an olive branch in its mouth; by this Noah knew that the waters had abated from off the earth; and Noah being now 601 years old, he unroofed the ark, and on the 27th day of November, he quitted the ark with all his family, and the face of the ground was dry! And God blessed Noah and his sons, and said unto unto them, Be fruitful and multiply; and God forbade blood and murder. And God said unto them. Flesh with the life thereof, which is the blood thereof, shall ye not eat. And God spake unto Noah, and unto his sons, saying, Behold, I establish my covenant (signified by the rainbow) with you, and your seed after you, that all flesh shall not be cut away any more by the waters of the flood. And Noah and his family offered sacrifice unto God, and whilst they were offering sacrifice, the first rainbow appeared!



Seventh Medal
Noah and his
Family offering
Sacrifice.
Poussin.

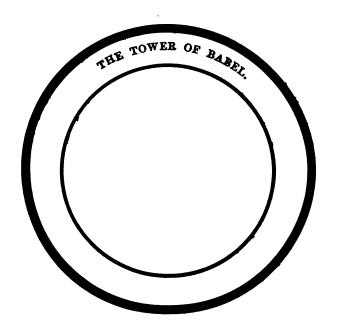
Noah planted a vineyard, and drank of the wine to excess. In this state, his son Ham mocked him in his nakedness; and God cursed Ham, and also Ham's son Canaan. Thus the sins of the father are visited upon his children.

And Noah lived after the flood 350 years, which made his age at his death 950 years.

The descendants of the sons of Noah were numerous after the flood; among them was Nimrod, supposed to be the first king that ever wore a crown. Nimrod was the son of Cush, the eldest son of Ham; and the Cushites are supposed to have peopled Ethiopia, the south part of Egypt, And these people became the patriarchs of nations, dispersing themselves over the world. It is supposed that Nimrod built the city of Nineveh, the capital of Assyria.

2280 B.C.

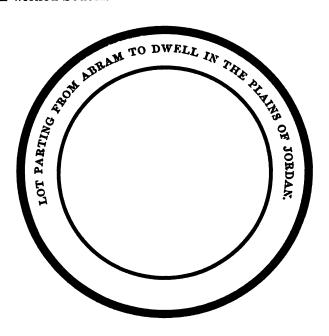
At this period the world was of one language and one speech, and they journeyed into the land of Shinar, a land laying between the rivers Euphrates and the Tigris, in Babylon; when they said to each other that they would burn bricks, and use slime for mortar, and then build a tower which may reach up into heaven. Having made great progress in the erection of it as far and high as human skill would admit, God, for their presumption, confounded their language, so that they could not understand one another, and dispersed them, and scattered them abroad; and the building was called the Tower of Babel, which application denotes confusion.



Eighth Medsl.
The Tower of Babel.

Terah, of the generation of Shem, begat Abraham and Haram, and Haram begat Lot. God called Abram, and blessed him with a promise of Christ, and promised to make him a great nation. He left Haran, and departed with his nephew Lot. for God had told him that in him should all the families of the earth be blessed; and Abram took his wife Sarai, and dwelt at Sechem, but she was barren. In consequence of a famine at Sechem, he took his wife into Egypt, and as Sarai was very handsome, Abram said, I will call thee my step-sister-being fearful that she might be taken away, and himself put away. She was, however, in consequence of her beauty, taken into Pharaoh's house. Pharaoh was visited with plagues in consequence of detaining Sarai. Pharaoh called Abram, and said, What is it that thou hast done unto me? why didst thou not tell me that she was thy wife? I myself might have taken her to wife. Behold now thy wife; take her, and go away.

Abram and Lot at this time agree to part, and travel contrary roads. Abram desired Lot to choose for himself, when it appears that Lot went to dwell in wicked Sodom.



Ninth Medal.

Lot parting from Abram to dwell in the Plains of Jordan.

Chedorlaomer, king of the Elamites, bordering upon Persia, invades Sodom and Gomorrah, and takes Lot captive. Abram hearing of this, goes against Chedorlaomer, and rescues Lot.

When Abram returned from pursuing the confederate kings, he came by the way of Salem (which city is supposed to be the present Jerusalem, and

which Jerusalem is called Salem by David). There a priest, of the name of Melchisedec, called the king of justice, and priest of the Most High God, came to meet Abram, and he blessed Abram, and gave him bread and wine; when Abram offered him tithes of all which he had taken from the enemy.

After these things, the word of the Lord came unto Abram, saying, Fear not Abram, I am thy shield and exceeding great reward. And Abram said, What wilt thou give me, seeing that I go childless? And God said, Look towards heaven, and tell the stars, if thou be able to number them. And he said unto him, So shall thy seed be. And Abram believed in the Lord; and on the same day the Lord made a covenant with Abraham, saying, Unto thy seed have I given the land from the River Nile of Egypt, to the great river, the River Euphrates.

1907 в. с.

Sarai having no family, gave her maid Hagar for a wife to her husband Abram; and when Hagar knew that she was with child, she despised her mistress. Sarah, therefore, complained to Abram, who answered Sarai, Do unto her as it pleaseth thee. Sarai then used her harshly, when Hagar fled from the dwelling of Abram; but an Angel of the Lord finding her in the wilderness, ordered her to return. She obeyed his voice, submitted to Sarai, and was delivered of a son, whom she named Ishmael, according to the word of the Lord which was told her by the angel who met her in the wilderness, and Abram was now 86 years old.

The Lord God said to Abram (through the medium of three angels), Sarai thy wife shall bear thee

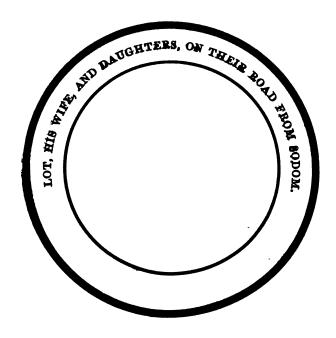
1898 B. C.

a son, and thou shalt call his name Isaac; and with Isaac will I establish my everlasting covenant, and with his seed after him. And I have heard thee as to Ishmael, I will make him fruitful; twelve princes shall he beget. But for Sarai thy wife, she shall be the mother of nations!

Now the Lord makes a covenant with Abram, and changes his name to Abraham, and Sarai to Sarah; and, in connexion with the covenant, circumcision is instituted.

It having been revealed to Abraham that he should destroy the city of Sodom, he prayed unto the Lord, and said, Will the Lord destroy the righteous with the wicked? The Lord answered, I will not destroy the wicked for even ten's sake.

Lot, his wife, and daughters, are suffered, at the destruction of Sodom and Gomorrah (overflowed by the waters of Jordan, which formed the present Dead Sea, or Lake of Sodom), to escape; but Lot's wife, contrary to express commands, looked back upon the burning city, when she was immediately covered with brimstone, and sacred history calls her turned, as it were, into a pillar of salt.



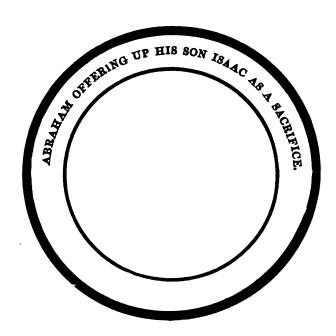
Tenth Medal.

Lot, his wife, and daughters, on their read from Sodom.

Abraham journeys to Gerar, to make a covenant with Abimelech, when he imprudently calls Sarah his sister. Abimelech has a dream that she was Abraham's wife, immediately restores her to Abraham, and rebukes him for his foolish stratagem. Abraham made a covenant with Abimelech, which is the first instance upon record of a treaty of peace.

God tries Abraham's faith and obedience by tempting him to offer up his only son Isaac as a sacrifice, the angel of the Lord stayed the hand of Abraham, and presented a ram in a thicket close by, which Abraham took, and offered up as a burnt offering instead of his son Isaac.

1876 B.C.

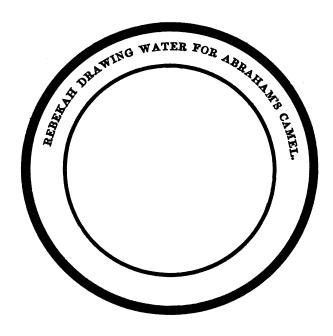


Eleventh Medal.

Abraham offering up his Son Isaac as a Sacrifice.

Sarah dies at the age of 127 years, and was buried in the field of Macpelach.

Abraham sends Eliezer, his steward, into Mesopotamia, to procure a wife for his son Isaac, who was now 40 years old, when Eliezer brought Rebekah, the daughter of Bethel, grandson of Nahor, and it appeared that she proved to be Abraham's brother's grand-daughter.



Twelfth Medal. Rebekah drawing water for Abraham's Camel.

After having provided a wife for his son Isaac, Abraham married again a woman called *Keturah* (the Jews insist upon it that it was *Hagar*), she brought him six children, who, when grown up, he portioned off, and sent them eastward into Arabia Deserta.

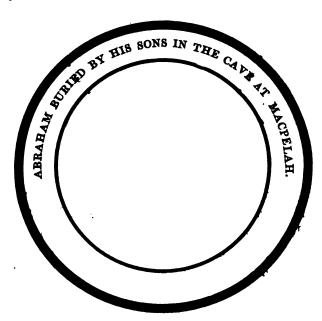
About this period Shem, the son of Noah dies; he was the next to Japheth and older than Ham; he left five sons, who peopled the finest provinces of the East.

Rebekah is barren for nineteen years, but, in answer to the prayers of Isaac unto the Lord, she became pregnant with two children; these struggling together in her womb, she consulted the Lord by prayer, who informed her that the elder should be subject to the younger. At the birth, the first,

being ruddy and hairy, he was, in consequence, called Esau; the other, holding the heel of his brother, was called Jacob (the healer). Esau delighted in hunting, but Jacob was a plain homely man, and resided in tents.

1817 B.C.

Abraham dies, and is buried by his sons in the cave at Macpelah, in a city beyond Jordan, which city Judas Maccabeus took and sacked.

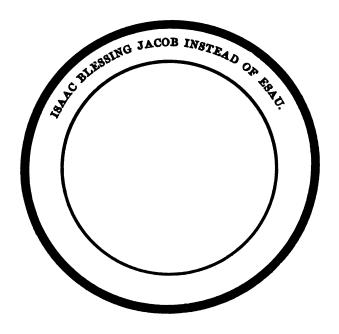


Thirteenth Medal.

Abraham buried by his Sons in the Cave at Macpelah.

At this period there was a famine in the land, and Esau, returning from the fields, found himself so faint that he sold his birthright to his brother Jacob for a mess of red pottage, for Esau always despised his own birthright, This deception, however, was planned by Rebekah, the mother, and rather against the feelings of Jacob, who informed his mother that if the father discovered the decep-

tion, it would bring upon him a curse instead of a blessing. Esau being a hairy man, Rebekah brought unto her son Jacob some of Esau's clothes, and covered his hands with the skins of goats; she then dressed some savoury meat, and gave it to Jacob, to invoke his father to eat of it. Isaac, however, said unto him, Art thou my very son Esau? for thy voice seems the voice of Jacob, but thy hands are the hands of Esau. And he discovered him not, and blessed him, and said, Be lord over thy brethren, and let thy mother's sons bow down to thee.



1755 B.C.
Fourteenth
Modal.
Isaac blessing

Jacob had scarcely left his father, when Esau returned. Esau informed his father of the deception, and craved a blessing also. And Isaac said, Behold thy dwelling shall be the fatness of the

earth, and by thy sword thou shalt live, and serve thy brother Jacob; but it shall come to pass that thou shalt have the dominion, and then thou shalt break the yoke from off thy neck.

Esau now married the daughter of Elom the Hittite, which much grieved both Rebekah and Isaac, for she was a Canaanitish woman.

It came to the knowledge of Rebekah that Esau threatened that, after his father's death, he would slay his brother Jacob; she therefore informed Jacob of his brother's wrath, and persuaded him to go to the house of Bethel, where her father still resided. Jacob went from Beer-sheba, and travelled towards Haran, and tarrying until night, he took a stone on the spot, and laid it for a pillow, and went to sleep. He dreamed a dream that a ladder was set upon the earth, and that the top of it reached up to heaven, and that the angels of God were ascending and descending upon it; and that the Lord stood above, and said, In thy seed all the families of the earth shall be blessed. And Jacob rose up in the morning, and set the stone on end for a pillar, poured oil upon it, and called the place "Bethel."

On Jacob arriving at the well at Haran, he is entertained by Laban, the brother to Rebekah. Laban had two daughters, Rachel and Leah. Jacob covenanted for Rachel to be his wife, on serving Laban seven years, but as it was the custom in Syria not to marry the second daughter before the first-born, he deceived Jacob, and presented his eldest daughter Leah. Jacob covenanted to serve seven years more, and then to marry Rachel. Leah brought forth Reuben, Simeon, Levi, and Judah; and Rachel brought forth Joseph and Benjamin.

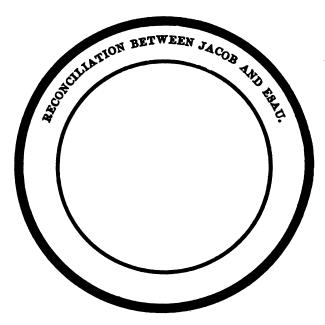
Jacob, however, was not upon the best terms with Laban at this period, for the flocks of Jacob increased and multiplied exceedingly, whilst those of Laban did not increase. Jacob, perceiving Laban's jealousy, separated from him, taking with him his two wives, children, and flocks.

Now Jacob sent messengers before him into the land of Seir, adjoining the Dead Sea, the country and residence of Esau. He also sent his servants before him, with presents of goats, rams, sheep, &c., to appease his brother Esau, and his servants were commanded to tell Esau that their master, Jacob, was behind.

Jacob sent the remaining part of his flocks over the river Jabbok, and his wives and the remainder of his servants, when Jacob was left alone all the night without crossing the river, and there he wrestled with an Angel until the breaking of the day. During this wrestling, the Angel touched the hollow part of Jacob's thigh, which immediately withered. The Angel then blessed Jacob, and told him that his name was changed from Jacob to *Israel*—that is, a prince with God; and left him.

It is a curious circumstance that the Jews to this day strictly observe a custom to abstain from eating the hind limbs.

In the morning, Jacob proceeded with his wives and children, and shortly he saw at a distance his brother Esau coming with many hundred servants. Jacob, his wives, &c., bowed seven times to the ground; then Esau ran forward to meet Jacob, and fell on his neck and kissed him.



Medal.

Rachel died in labour of Benjamin; she was buried at Bethlehem, and Jacob erected a monument for her.

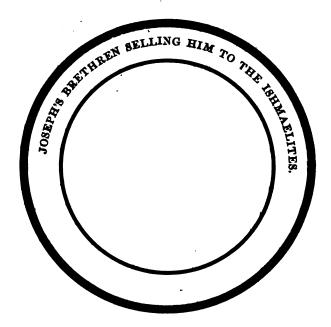
Jacob resolves to return to his parents in Canaan, and put away all strange gods and idols. Isaac lived twenty-two years after his son's arrival, and died at the age of 180 years.

Esau removed from Edom to Mount Seir, taking with him his three wives and seven sons; and the sons of these sons were styled Dukes in the land of Edom; and these were the *Kings* that reigned in the land of Edom, before there reigned any other, Esau being the father of the Edomites. Jacob now dwelt in the land of Canaan, and loved his son Joseph more than any of his children, he being the son of his old age; this caused his brothers to be

jealous of him, and to hate him. Joseph dreamed a dream, and told it to his brothers, saying, We were together binding sheaves of corn in the fields, and, lo, my sheaf stood upright, and your sheaves round about paid obeisance to my sheaf. And they hated him the more for this saying.

Israel (before called Jacob) said unto Joseph, go and seek thy brethren, who are feeding their flocks in Shechem; and when they saw Joseph afar off, they said one to another, Let us slay Joseph, and cast him into a pit, and we can say to our father Jacob that a wild beast hath devoured him; but Reuben said, "shed no blood." They then stripped him of his coat, which was of many colours, and they let him down into an empty pit. At this moment a company of Ishmaelites was passing by, coming from Gilead, with their camels laden with spices; and Judah said, Let us sell him to these Ishmaelites; and there passed at the same time Midianites, merchant men: and they lifted Joseph out of the pit, and sold him to the Ishmaelites for twenty pieces of silver.

1794 B.C.



Sixteenth Medal. Joseph's brethren selling him to the Ishmaelites.

Reuben, however, returned to the pit with the intent to save Joseph, but finding that he was gone, he was full of sorrow, and told his brethren, and said, Whither shall I go? The rest took Joseph's coat and dipped it in the blood of the kid, and brought it to their father, and said, Joseph must have been devoured by an evil beast; and Israel, full of affliction, put on sackcloth, and mourned for his son many days. The Ishmaelites took him into Egypt, and sold him to Potiphar, the captain of Pharaoh's guard.

Joseph was now placed in the house of Potiphar, the captain of Pharaoh's guard, and the Lord made all that Joseph did prosper in his hands. Potiphar, seeing this, made him overseer over his house, and over all that he had. Potiphar's wife conceived a criminal passion for him, and solicited him, and pressed him so strongly, that Joseph could not escape from her but by leaving his cloak in her pos-Seeing herself despised, she cried out that the young Hebrew had offered her violence, exhibiting the cloak to Potiphar as a proof of her assertion. Potiphar, crediting the evidence, threw Joseph into prison, where, from his good conduct, he was soon appointed by the prison-keeper as overseer of the prisoners. It so occurred that two of the king's officers, the butler and the baker, having displeased Pharaoh, they were placed in the same prison for their misconduct. It appears that both the butler and the baker dreamed a dream, and the butler communicated his dream to Joseph, that a vine was before him, and it had three branches with clusters of grapes, and Pharaoh's cup was in his hand, that he pressed the grapes into Pharaoh's cup, and gave it him to drink. Joseph said unto the butler that the three branches are three days, and that within three days Pharaoh shall restore thee to thy place.

The chief baker said unto Joseph, I also was in my dream, and behold I had three white baskets on my head, filled with bake-meats for Pharaoh, and the birds did eat thereof. And Joseph's interpretation of the dream was that the three baskets were three days, and that within three days shall Pharaoh lift up thy head from off thee, and shall hang thee on a tree, and the birds of the air shall eat thy flesh from off thee.

And it came to pass after two years that Pharaoh dreamed that he stood by the river, and behold there came out seven well-favoured kine, and they

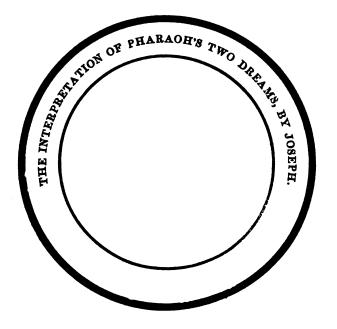
fed in a meadow; and behold there came out seven ill-favoured lean kine, and stood by the other kine, and they eat up the seven well-favoured fat kine. So Pharaoh awoke.

Pharaoh dreamed a second time. And behold seven ears of corn came upon one stalk, rank and good; and behold seven ears of corn, blasted with the east wind, sprung up after them. And the seven thin ears of blasted corn did devour and swallow up the seven full-fed ears. And Pharaoh awoke from his dream.

In the morning, however, his spirit was troubled, and he sent for the wise men and magicians of Egypt, but none could interpret the two dreams. The chief butler now ventured to speak unto Pharaoh, saying that both himself and the chief baker were put into the ward of the captain of the guard, and both of us dreamed a dream; and a young man, an Hebrew, servant to the captain of the guard, also in the same prison, interpreted our dreams, and said that I should be restored to office, and the baker would be hanged.

1718 B.C.

Then Pharaoh sent and had Joseph called from prison; and, after changing his raiment, he appeared before Pharaoh. Joseph answered Pharaoh, saying, It is not in me; God shall give Pharaoh an answer of peace. Joseph said, Thy dream is, that God hath shewn Pharaoh what he is about to do.



Seventeenth Medal.

The interpretation of Pharach's two Dreams, by Joseph.

The seven good fat kine are seven years, and the seven ears of corn are also seven years; the dream is one. Behold there shall come seven years of great plenty, and there shall come after them seven years of great famine, and all the plenty shall be forgotten in the land of Egypt, and the famine shall consume the land. Now, then, let Pharaoh look out for a man discreet and wise, and set him over the land of Egypt, and let him during the first seven years lay up corn in the cities, in the hands of Pharaoh. And the thing seemed good in the eyes of Pharaoh and all his servants. Pharaoh said, Can we find such a one as this man Joseph is, one in whom is the spirit of God?

And Pharaoh said unto Joseph, Forasmuch as God hath shewed thee all this, there is no one so discreet as thou art. Thou shalt be over my house, and according to thy word all my people shall be ruled; only on the throne will I be greater than thou. And Pharaoh took off his ring from his hand, and put it upon Joseph's hand, and arrayed him in vestures of fine linen, and put a gold chain about his neck.

In the seven years of plenteousness, Joseph bought up all the corn, and put corn and food in warehouses in every city in Egypt.

Pharaoh gave Joseph a wife, the daughter of Poti-pherah, the priest of On, and before the years of famine came she bore him two sons, Manasseh and Ephraim.

The seven years of dearth now came on, as Joseph predicted, and there was a famine over the face of the earth, with the exception of the land of Pharaoh, and all nations came into Egypt to buy corn from Pharaoh's steward. Jacob also sent ten of his sons (leaving Benjamin behind) from the land of Canaan, that they might live and not die. On their arrival, they bowed themselves before Joseph, and they did not know Joseph; but Joseph knew them. He said unto them, Whence came ye? They answered, From the land of Canaan, to buy food. And, on being particularly interrogated, they informed Joseph that they had another brother, named Benjamin, who, being young, they had left behind, but Joseph was no more.

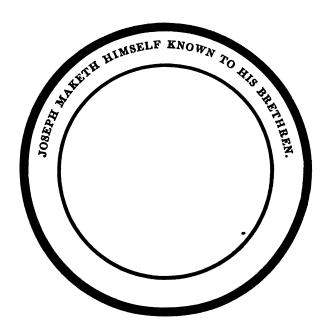
1708 B. C.

Joseph now ordered their sacks to be filled with corn; but, he said, to know that they were true men, he would retain Simeon, one of the ten, and the rest should return home, with their asses laden, and bring back their youngest brother, Benjamin.

And behold, on their arrival at their father's, in Canaan, they opened their sacks, and every one, to his surprise, found the money also in his sack; and they were sore afraid, lest on their return it might be said they had deceived the steward. therefore, sent them back again, with double the money in each sack, and also great presents; and Jacob very reluctantly allowed them to take Benjamin with them, and said, God Almighty give you mercy before the man, that he may send you back with your youngest brother Benjamin to me. So they took double money, and also Benjamin, and returned into Egypt. They informed the ruler or steward of Joseph's house about the money which they found in their sacks, and that their father was vet alive. Joseph desired the steward to bring them into his house, and on Joseph seeing his brother Benjamin with them, he released Simeon; and they sat down to eat in the same room with Joseph, but at a different table, because at that day the Egyptians might not eat bread with the He-They were arranged at table according to their birthright, and he sent them messes to be set before them, but Benjamin's mess was five times as much as any one of them, and they marvelled one with another, and they drank and were merry.

Now Joseph commanded the steward to fill the men's sacks, and put every man's money again in his sack's mouth; and in Benjamin's sack he commanded that, after the steward should put in the corn and the money, he also put into the sack's mouth his (Joseph's) silver cup. Soon after they were all gone a short distance from the city, Joseph

sent his steward after them, and who was to say, Have ye done evil for good? for where is the silver cup out of which my lord drinketh? And they were all astonished, and said, In whichever sack of thy servants it may be found, let him die, and we will remain my lord's bondsmen. The steward said, In whose sack it may be found, he shall be my The cup was servant; but ye shall be blameless. was found in Benjamin's sack, and they were brought back to Joseph, who immediately made himself known to his brethren, and said, I am your brother Joseph, whom ye sold into Egypt. But be ye not grieved, for God did send me before to preserve your lives; and Pharaoh has made me lord over all his house.



1702 B. c.
Eighteenth
Medal.
Joseph maketh himself
known to his
Brethren.

And Joseph said, Go and tell my father of all

my glory in Egypt, and bring down my father; and thou shalt dwell in the land of Goshen, and thy children, and thy flocks, and thy herds, and I will nourish thee during the five years of famine. And Pharaoh confirmed what Joseph had said. To each brother Joseph gave change of raiment, but to Benjamin he gave five changes, and also three hundred pieces of silver.

And when they had arrived home, in Canaan, they informed their father of all that Joseph had done and said unto them; he could not credit their sayings, but when he saw the presents, and the waggons which Joseph had sent to carry him, he believed, and began his journey, and on arriving at Beer-sheba, he offered sacrifice unto God. God spoke unto him and said, I am the God of thy father, fear not, and go down into Egypt. And all the souls that came with Jacob into Egypt were threescore and ten. And Joseph told all these things to Pharaoh, and he presented five of his brethren to Pharaoh, and set his father before Pharaoh, when Jacob blessed Pharaoh. And Pharaoh said, In the best of the land make thy father and brethren to dwell, and to be rulers over my cattle. The famine continued, and the money of the Canaanites, and also of the Egyptians, was all expended in buying corn; and Joseph now gave them corn in exchange for their cattle, horses, asses, and flocks; and the year following they sold unto Joseph all their land for corn, and afterwards themselves as servants, so all the land of Egypt became Pharaoh's, except the lands which were assigned by Pharaoh to the priests.

All history shows that the priesthood formed the highest and most privileged class in the state of Egypt. The Egyptians were divided into castes, something like the Indians.

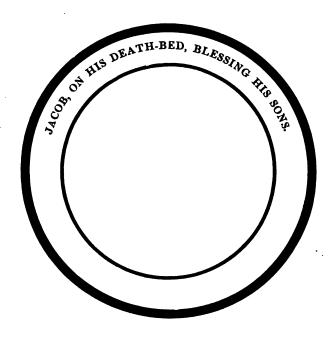
The priests were the first class, the military the second, and the tradespeople the third, and so on; and every man was obliged to follow the trade or profession of his father.

The highest castes considered themselves polluted by holding communication with the lowest caste. Joseph's father-in-law was a priest of On, a city in Egypt; he was considered about the rank of a prince. And Pharaoh was allowed one-fifth of all produce of seed as a tax.

1695 B. C.

Now the time grew nigh that Jacob must die, and Jacob called together his twelve sons and blessed them.

- 1. Reuben is deprived of his birthright, in consequence of his crime.
- 2 and 3. Scattered to the outskirts for their conduct at Shechem.
  - 4. Judah shall possess pre-eminence.
  - 5. Zebulon foretold to be of the maritime tribe.
  - 6. Issachar for labour in the field.
- 7. Dan shall be a serpent in the way (Sampson sprang out of this tribe).
- 8. Gad; this tribe to be the most violent in Israel.
  - 9. Asher; fertile in corn and wine.
- 10. Naphtali; like a good tree that shoots forth fine branches.
- 11. Joseph, his favourite son, and for future blessings.
  - 12. Benjamin shall ravin as a wolf.



Nineteenth Medal. Jacob, on his Death-bed, blessing his Sons.

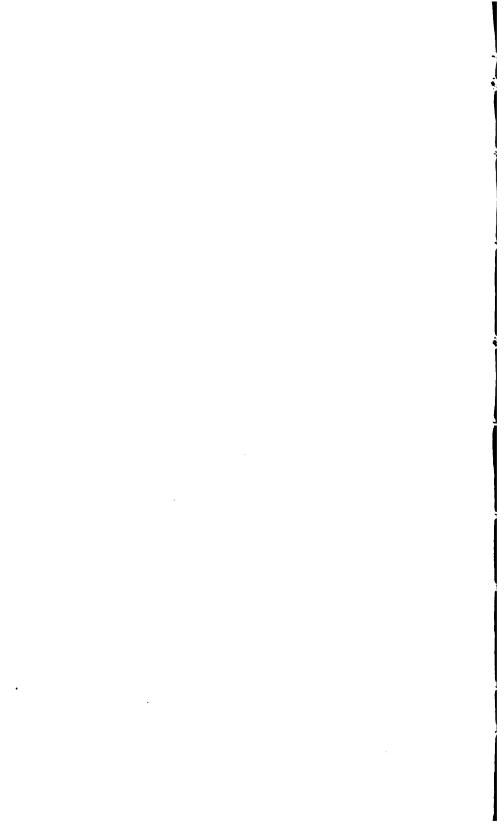
Joseph dies at the age of 110. He foretells the departure of the Israelites from Egypt, and desires to have his bones carried to his father's grave in Canaan.

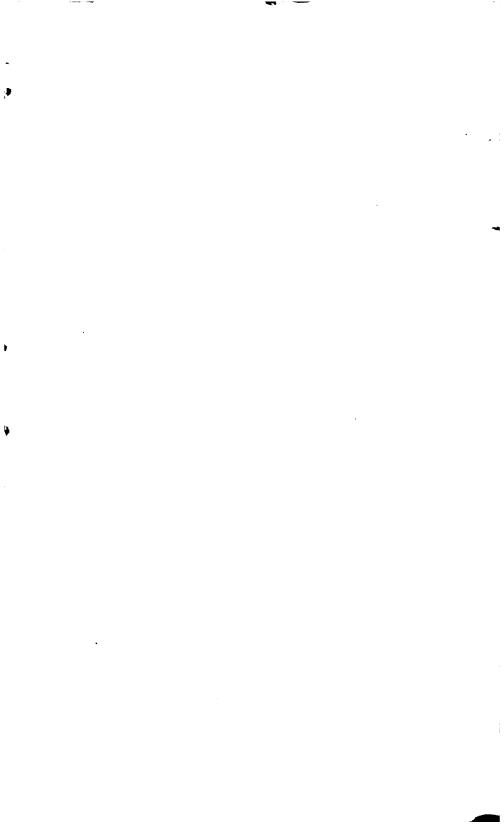
After Joseph's death in Egypt, the children of Israel multiplied exceedingly; but there now rose up a Pharaoh who knew not Joseph, and ultimately, finding that the children of Israel had increased so much as to be in numbers more mighty than himself, he put taskmasters over them, and made them build cities. But the more King Pharaoh afflicted them, the more they multiplied; therefore the King commanded the midwives to kill all the Hebrew male children, and cast them into the river.

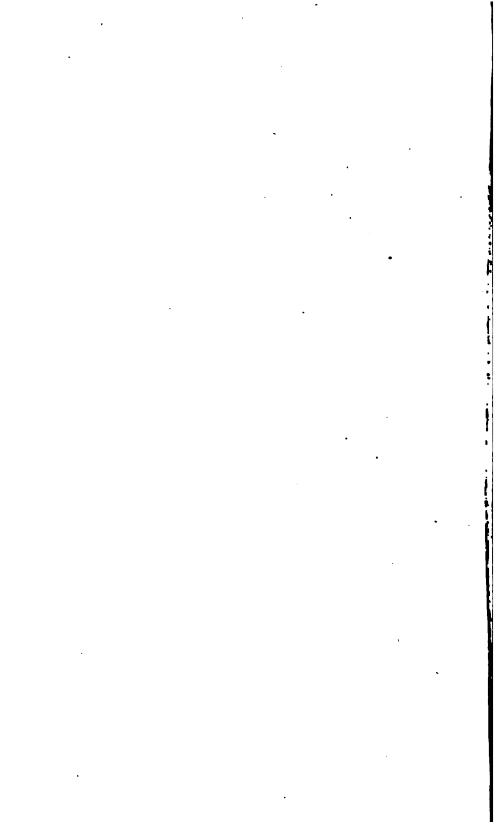
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